STEEL

EDITORIAL INDEX

for

VOLUME 138

January 1 to June 30, 1956

Subject Index 2
Company Index . . . 14
Author Index 24

THE PENTON PUBLISHING COMPANY

Penton Building, Cleveland 13, Ohio

SUBJECT INDEX

A

Abrasives:
Abrasive research pays (abrasive wheel sales), 4/9, p.71
Shot and grit sales, 6/4, p.70
See Grinding, Polishing

Accidents:
BLS injury-frequency rate, 4/16, p.54; 6/25, p.53
Work injuries—'55, 3/12, p.89
See Safety

Accounting:
Metalworking financing, A-2 credit, 2/13, p.43

Acoustical Materials Assn.:
Elects, B, 4/23, p.101

Adhesives:
Adhesive for Air Force, low pressure bonding, ENG, 2/20, p.107
Helicopter rotor blades bonded by resin-adhesives, 1/23, p.69
Honeycomb panel adhesives, 6/11, p.111 and 112

Air:
See Compressed Air
See Power Tools
See Smog-Smoke

Air Conditioning:
Auto air conditioning, 6/4, p.73
Home units, industry report, 6/18, p.100
Levittown central air conditioning systems, 1/23, p.43
Oldsmobile forge plant, ENG, 6/18, p.147

Aircraft:
Aircraft bolts, new high-strength, 6/4, p.114
Atomic (see Atomic Energy)
Bomb ejector breeches of titanium, 3/19, p.112
Business planes, numbers, 3/26, p.79
CAA '56 forecast, 5/21, p.76
CAA airway controls program, 4/9, p.72
Commercial aircraft sales, Beechcraft, 1/9, p.39
Gas turbine helicopters, 5/14, p.62
Heat treat line for aircraft steels, 5/14, p.124
Heat treating superstrength steels, 6/18, p.150
Instrument vibration checked, 5/14, p.139
Jets go civilian (chart) who's buying, 3/19, p.49
Jets get flareless fittings, 5/7, p.111
Landing gear: Lighter hydraulic pistons formed from plastics molded over aluminum, 3/5, p.111
Research spending, 3/12, p.78
Sikorsky helicopter design: Titanium takes away the heat, 1/30, p.106
Specifications, what they mean to you, 4/16, p.92
West Coast aircraft, commercial orders gain, 1/16, p.40
See Supersonics

Air Force:
Contract awards, 6/18, p.98
Forecast: Heavy press orders; machine tool contracts, 1/9, p.22
Gen. LeMay wants purchase funds, 6/18, p.92
Heavy Press Program:
  Alcoa plans 20,000 extrusion press, 3/12, p.78
  Heavy presses forge a future (closed-die forging presses operating in U. S.), 1/9, p.74
  New press requirements, 3/19, p.55
Industrial readiness planning, aircraft-missiles, 1/16, p.44
Sheet and strip thickness standards for planes, 2/13, p.143
Solar research furnace, N. Mex., 4/16, p.58
Titanium handbook, 3/5, p.122
Thunderstreak jet, compressed air, ENG, 3/26, p.125

Air Frames:
Honeycomb dev. (GE): Supersonic lab for supersonic power, 2/27, p.116
Honeycomb panels: On the threshold of a boom, 6/11, p.112
Machining wind tunnel nozzles for Air Force, 5/7, p.114
Titanium forgings with a pedigree, 4/2, p.100
Titanium for bomb ejector breeches, 3/19, p.112
Titanium for exhaust equipment, 1/30, p.106

Air Moving & Conditioning Assn. Inc.:
Elects, 2/20, p.104

Air Tools: see Compressed Air

Allotments: See BDSA and ODM

Alloys:
Alloy steel producers, report, 2/6, p.175
Alloy steel production by processes, YC, 1/2, p.152
Brazing with silver alloys, 6/25, p.80
Checkerboard alloys, color-coded castings, 3/26, p.191
Copper-aluminum weld (dissimilar metals), 6/4, p.120
Ferroalloy demand rises, 5/28, p.187
Hi-temp alloys for heat barrier, ENG, 5/21, p.109
Supersonic materials (alloys), 4/9, p.112
T-1 for tank casing, 2/20, p.145
Ti-moly combine, ENG, 4/16, p.91

Aluminum:
Alcoa foil mill, 2/27, p.97
Aluminum bar stock, machining comparison chart, 3/26, p.140
Aluminum consumption (world), 3/19, p.144
Aluminum firms, numbers, 2/20, p.60
Aluminum ingots continuous cast, 4/2, p.96
Aluminum ingot capacity, U. S. firms, 2/6, p.77
Anodized aluminum wire insulation coat with ac process, 3/26, p.80
Auto use:
  1956 cars, where aluminum will be used (chart), 1/16, p.51
  Anodized aluminum trim (grilles), 2/27, p.110
  Anodized aluminum grilles, Electric Auto-Lite, 3/12, p.78
  Autos go heavy on light metals, 1/16, p.82
Extrusions of wide aluminum, uses recommended, 1/16, p.79
German-Swiss interests, Que., 6/4, p.54
Gold aluminum made without dye, Kaiser method, 3/12, p.88

Aluminum Assn.:
Elects, B, 2/13, p.77

American Association of Mining & Metallurgical Engineers:
Meeting: Titanium for civilian uses reported, 4/2, p.55

American Electroplaters' Society:
Electrotinning wire plating, 1/16, p.90

American Foundrymen's Society:
Atlantic City meeting, elections, 5/14, p.71

American Gear Manufacturers' Assn.:
Meeting report, 6/11, p.73

American Hot Dip Galvanizers Assn. Inc.:
Meeting report, 4/9, p.77
Elects, B, 4/23, p.98

American Institute of Electrical Engineers:
Gold medal award, B, 4/16, p.86

American Institute of Mechanical Engineers:
Electric furnacemen talk shop, 1/9, p.64

American Institute of Mining, Metallurgical & Petroleum Engineers:
Meeting report: Sinter and sulphur, 4/30, p. 100
Johnson Award, B, 3/12, p.118

American Iron & Steel Institute:
Meeting report (speakers), 5/28, p.65
Meeting (speakers) scheduled, 5/14, p.71
Moved, 6/4, p.54; 6/25, p.76
Steel hourly wage, 4/9, p.66
Steelmaking capacity, 1/9, p.102
Steel capacity next three years, 1/23, p.43

American Machine Tool Distributors Assn.:
Meeting-Detroit: Replacement of obsolescent machines an issue, 4/2, p.101

American Management Assn.:
Chicago meeting: Industrywide bargaining report, 2/20, p.59
Electronic conference, data processing machines report, 3/5, p.55
Management development programs, 5/14, p.69

American Railway Car Institute:
Carbuilders' report, 1/9, p.30

American Rocket Society:
Taming supersonic heat: A. V. Levy, 4/9, p.112

American Scientific Technical Research Organization:
Detroit firms production pool, 4/16, p.58

American Society of Mechanical Engineers:
Engineer shortage, educational standards, 4/2, p.54
Meeting: Computers move to production (forecast), 3/5, p.102

American Society of Refrigerating Engineers:
Elects, B, 6/25, p.76

American Society of Tool Engineers:
Annual convention, 3/12, p.173
Automation forecast, 2/27, p.72
Automation report (meeting), 4/16, p.103
Elects new president, B, 4/2, p.92

American Standards Assn.:
Elects, B, 1/16, p.65

American Steel Warehouse Assn.:
Meet in San Francisco: More steel via warehouses?, 5/14, p.72
Meeting—scheduled for New Orleans, 5/14, p.73
Northern Ohio chapter elects, 5/7, p.86

American Supply & Machinery Manufacturers' Assn.:
Elects, B, 4/23, p.98; 6/11, p.104
Small order problem, 1/16, p.32

American University:
Prof. H. B. Wess: Small business future, 4/16, p.57

American Zinc Institute:
Continuous galvanizing hits its stride: E. W. Horvick, 2/6, p.122
Elects, B, 5/7, p.86

Amortization:
Air lines, 4/16, p.55
Electric power facilities, 3/12, p.84
Fast write-off discontinued for commercial planes, freight cars, etc., 1/9, p.22
Fast write-off, 60-day rule repealed, 2/6, p.82
Fast write-off program, who will get it, 6/11, p.74
Freight car goal, 5/7, p.56
Freight car write-offs, 2/20, p.69
ODM write-offs, 1/30, p.51; 4/23, p.67; 5/21, p.73

Anodizing:
Anodized aluminum, ac current in chemical solution, ENG, 4/30, p.91
Anodized alurninum wire, ac current for insulation coat, 3/26, p.80
Auto use (see Automotive)

Antitrust: See Government

Appliances:
Gas appliances, industry report, 2/20, p.70
Gas appliance forecast, 5/7, p.47
Kitchen cabinet sales, 2/20, p.76
Porcelain enameling, forecast, 4/30, p.70
Replacement sales to bolster business, 1/23, p.34
Sales, shipments, YC, 1/2, p.176
TV joins X-ray to test heating elements, 4/30, p.120
Trade-in market surveyed, 3/26, p.79
Used appliance market, 4/9, p.65

Apprentices:
Caterpillar Tractor program, 6/11, p.78
Hughes Aircraft program, 4/23, p.71
Skilled labor shortage steps up programs, 4/2, p.53

Area Development:
Area development map, growth between 1953 and projected 1965, 2/13, p.86
Ohio:
  Akron-Canton, new plant sites, 1/23, p.33
  Northeast Ohio expands, 6/11, p.67
  Teamwork along the Ohio, mill towns, 6/18, p.108
Plant site selection, six steps, 2/13, p.85
Texas gulf coast, 4/23, p.70

Armour Research Foundation:
See Illinois Institute of Technology

Associated Industries of Cleveland:
Employee stock purchase plans surveyed, 2/13, p.36
Foremen salaries (profile), 2/13, p.44
Fringe benefits cost, Cleveland manufacturers, 1/16, p.31
SUB forecast by Slichter (Harvard), 3/12, p.77
Vacation trends, 5/21, p.73

Association of Iron & Steel Engineers:
L. A. meeting, 3/5, p.56

Association of Lift Truck & Portable Elevator Manufacturers:
Case for hand-power handling by F. J. Dunleavy, 1/16, p.73

Association of Steel Distributors:
Elects, B, 1/23, p.67

Atomic Energy:
Atomic airplane, company contracts, 1/9, p.22
Atomic airplane, Air Force reactor tests, 4/16, p.46
Atomic fuel elements, 1/9, p.33
Atomic plant, Great Britain, 4/2, p.59
Atomic plant, GE and Pacific Gas & Electric, 3/12, p.86
Atomic plant, Michigan, 6/4, p.65
Atomic plant operators need insurance backing, 5/28, p.72
Atomic plants scheduled, 3/12, p.77; plant permits, 5/14, p.74
Atomic reactors, powdered metals use, 4/16, p.96
Babcock & Wilcox to test nuclear reactor cores, 2/20, p.69
Babcock & Wilcox: Commercial atomics in action, 6'11, p.134
Battelle lab for reactor research, 3/5, p.112
Merchant ships, proposals submitted to Maritime Adm., 4/9, p.60
Metalworking interest (management series), 6/18, p.140

NICB meeting report, 5/28, p.77
Private bids for power plants, 2/20, p.68
Private industry urged to recover usable materials from reactor elements, 1/16, p.44
Private industry urged to recover uranium from fluoride scrap, 1/30, p.51
Private organizations permitted AEC facilities, 2/20, p.72
Public utilities may build plants, 2/13, p.48
Russia reveals atom plans, 3/26, p.97
Supertanker nuclear powered, Ford Instrument, ENG, 4/9, p.111
Warship nuclear powered, study, 4/2, p. 48
Westinghouse developments, 4/9, p.93
Zirconium contracts: National Research, National Distillers, Carborundum, 5/7, p.56

Atomic Energy Commission:
Insurance to cover atomic reactor accidents, 4/2, p.57
Insurance backing sought by plant operators, 5/28, p.72
Licensing facilities ready, 2/6, p.86
Uranium procurement program, 6/25, p.59

Automation:
Air traffic automation need, 4/9, p.72
Auto wheel discs, automated line (England), 2/20, p.69
Automated gear production, 1/9, p.58
Automated gear production, furnace with flexibility, 3/19, p.109
Automatic welder, make-your-own, 3/19, p.120
Automation grabs another (crankshaft grinding for V-8), 4/30, p.98
Automation: How to plan it (SAE session with mythical Heliotrac Co.), 1/30, p.42
Automation market forecast (charts operations not yet automated), 2/27, p.72
Automation maintenance show, 1/30, p.45
Consider the automatics (screw machines), 6/18, p.152
Design with man in mind (GM man-machine concept), 6/18, p.148
GE remolds a factory, mechanizing, 1/9, p.60
Materials handling challenge, 5/28, p.123; plant facilities, 5/28, p.110
Small company automates (Lee Silver Service), 1/30, p.44

Automotive:
1956 forecast (SAE): Automakers look ahead, 1/23, p.53
1957 preview, timetable, 3/12, p.83
1957 styling features, 3/12, p.83
Air conditioning sales, 6/4, p.73
Aluminum: Automakers take to aluminum trim, anodized grilles, etc., 2/27, p.110
Aluminum: Autos go heavy on light metals, 1/16, p.82
Aluminum: More aluminum for autos, cars using (chart), 1/16, p.51
Aluminum anodizing stamping unit, Electric Auto-Lite, 3/12, p.78
Aluminum die-cast engine blocks, Doehler-Jarvis, 4/23, p.68
American Motors' V-8 engine, 3/5, p.65
Auto part silver brazed, 6/25, p.80
Auto parts sales, 2/6, p.69
Auto parts industry aided by diversification, 3/19, p.37
Auto parts suppliers, industry report, 2/20, p. 79
Auto parts suppliers: Pressure on partmakers, 4/23, p.79
Auto parts suppliers suspend business, 4/16, p.45 and 66
Auto part suppliers: Replacement and accessories, 6/25, p.52
Auto production (1948-60), 1/2, p.125
Auto production estimates '56, cars listed (chart), 1/2, p.126
Auto production, YC, 1/2, p.178
Auto production figures, 6/11, p.62
Auto production, AMA, 2/13, p.56
Auto production, Value Line Investment, 3/19, p.39; 5/7, p.47
Auto production, Wards, 2/20, p.79; 5/14, p.82
Auto sales, 4/9, p.80; 5/7, p.68
Auto sales, independents (forecast next 3 years), 4/2, p.58
Auto Show attendance, Chicago, 1/16, p.32
Auto Show report, 1/16, p.52
Auto wages, skilled-unskilled, little differential, 4/2, p.54
Automatic transmissions gain, 2/6, p.89
Brake bands bonded, 1/23, p.90
Brakes-disc type, Auto Specialties: A better way to stop, 3/12, p.97
Buick axle housings, line forms and welds, 2/13, p.97
Capital expenditures (auto firms), 3/26, p.99
Catalytic muffler, smog snuffer, ENG, 3/26, p.125
Chrysler's research pays, 5/14, p.81
Dealer antimonopoly committee, 6/4, p.74
DeSoto's Adventurer, sports car, 1/23, p.54
Diecast aluminum engine, 4/23, p.68
Diecast zinc parts, uses, 5/28, p.79
Distribution bill (Monroney), 6/18, p.92
Distribution bill hit by Big Three, 6/25, p.62
Engine block, replaceable cylinders, 1/23, p.54
Finished steel, No. 1 user, 3/19, p.154
Frame construction, Chevrolet, 2/13, p.55
Frame changes, ladder-type (Continental Mark characteristics), 2/27, p.83
Gas turbine engine: Dream car economies, 4/23, p.68
GM Motorama, dream cars displayed, 1/30, p.53
GM Technical Center: Climate for progress, 5/7, p.152
GMC '56 models: Eldorado Brougham and L'Universelle truck, 1/2, p.129
GMC road shock dampers on trucks, ENG, 1/23, p.69
Ghia Gilda, experimental European car, 1/23, p. 53
Hard tops—station wagons, popularity poll, 3/12, p.98
Horn sounds studied, 2/6, p.90
Jaguar five-seater, 5/7, p.68
Magnetic compressor clutches, 6/4, p.73
Mercury's XM-Turnpike Cruiser, 1/23, p.54
Packard Executive, new model, 4/30, p.73
Plastic inserts for suspension joints may end lube, 6/11, p.146
Plastic mufflers, 6/4, p.64
Plastic top, Chevrolet, 5/7, p.68
Pontiac cast crankshafts, 3/19, p.57 and 6/4, p.117
Quality control, juggling, 4/2, p.67
Radioactive isotopes save money-time, 6/25, p.61
Replacement parts sales, 2/20, p.79
Reuther proposes list price cut during slack selling months, 6/18, p.98
Sports car, competition, 1/2, p.129
Tire 14-in., 1/9, p.39
Tire, blowout-proof, 6/18, p.111
Tires, steel cord, 2/6, p.79
Tooling deadlines plague die-makers, 6/11, p.81
Transmission housing, magnesium rather than aluminum, 6/25, p.42
Truckbuilders sales, production, 4/16, p.65
Volkswagen production date, 1/2, p.129
Volkswagen, U. S. production cancelled, 1/20, p.34

Awning Windows:
Mechanism handles windows, 2/20, p.142

B

Barrel Finishing:
Automatic systems "Supersheen", 5/7, p.114

Bars:
For machinists: Hollow aluminum bar stock, 3/26, p.140
Reinforcing bars, construction demand, 5/14, p.207
U. S. Steel changes product classification, price changes, 1/2, p.474

Battelle Memorial Institute:
Electirc furnace capacity, growth 1935-55, 4/9, p.120
Reactor research lab, 3/5, p.112

Batteries:
Silver-cadmium cell, ENG, 2/20, p.107

Bearing Assemblies:
GE: Shrink fitting gets a boost, 1/30, p.88

Bearings, Bushings:
Engine bearings, relative load capacity, 5/14, p.156
Miniature ball bearings, MPB's production-sales statistics, 6/25, p.59
Rubber ball bearings for sanders, 2/13, p.91

Beneficiation:
Jasper project (Mich.), firms, 2/20, p.68

Beryllium Copper:
Beryllium copper pays its fare (taximeters), 1/23, p.81
Beryllium copper, wire cloth damps vibration (electronic instruments), 5/14, p.139
Fights fatigue (contact material-printed circuits), 5/14, p.151

Blast Furnace & Coke Assn.:
Chicago meeting, 3/26, p.134

Blast Furnaces:
Blast furnace in moth balls (plastic coat), 3/26, p.134
Carbide brings the sulphur down (desulphurizing), 3/5, p.100
Detroit Steel—Portsmouth furnace rebuilt, 1/23, p.43
Companies adding stacks, 3/5, p.62
Granite City Steel, "A" furnace repair: Up capacity in less down time, 2/13, p.100
Granite City Steel, blast furnace moving day, 6/4, p.110
More sinter for the blast furnace, 5/14, p.126
Oxygen enriches blast at Weirton, 6/11, p.120
Youngstown-Campbell Wks., 3/19, p.46

Blasting: See Cleaning, Blasting

Blow Torch:
Oxyacetylene blowpipe plus metal powder cuts concrete walls, 3/5, p.116

Blowers: See Fans & Blowers

Boats:
Outboard motor sales, 6/25, p.52
Power boat sales, 3/26, p.91

Bolts: See Fasteners

Bonding:
Brake band bonding machine, 1/23, p.90
Iron-enamel adherence, oxygen role, 3/5, p.106
Metals to plastics, 2/20, p.114
Plastic to aluminum (aircraft landing gear pistons), 3/5, p.111
Roll-Bond metals, built-in tubes: Design for heat transfer, 5/14, p.123
Where wood and metal meet (TV cabinet), 3/19, p.98

Books, Booklets:
Diamond tool standards, 4/30, p.106

Brainstorming:
Ideas for industry (management series), 4/23, p.105 and editorial, p.63

Brazing:
Brazing series (modern):
Brazing catches up, 3/26, p.127
Choose the right brazing method, 4/16, p.106
New kinks in brazing, 5/21, p.114
Vacuum brazing, 6/4, p.107
Brazing with silver alloys, 6/25, p.80
Metals, high-temp. service, ENG, 1/30, p.83
Molybdenum, high-temp. base, ENG, 5/21, p.109

Broaching:
Cam sprags, 1000 an hour, 5/14, p.130
Vertical broach automatically handles automotive lever arms, 5/21, p.130

Bureau of National Affairs Inc.:
Pay boost increases, 4/16, p.45

Business:
1956 outlook, Commerce report, 6/25, p.54
2nd-half prospects, survey, 6/4, p.53
Abrasive wheels, 4/9, p.71
Air conditioners-home, 6/18, p.100
Alloy steel report, 2/6, p.175
Auto parts sales, 2/6, p.69
Auto parts suppliers, 2/20, p.79
Auto sales outlook, 4/2, p.58
Blower sales, 4/30, p.65
Canadian economy, 4/16, p.56
Casting sales, 4/2, p.64
Centrifugal castings, 3/12, p.86
Clutch and torque converter sales, 4/9, p. 70
Consumer goods, 4/2, p.48
Consumer spending forecast, 2/13, p.83
Conveyor sales, 4/9, p.67
Crane, hoist and monorail sales, 3/19, p.48
Customer outlook, population forecast, 2/13, p.83
Cutting tools, 1/9, p.31
Diecastings, 3/19, p.55
Drop forgers, 3/5, p.153
Economic forecast, 4/2, p.47
Economic pulse, PA's meeting, 5/28, p. 68
Economy, spending points, 6/18, p.104
Economy, steel strike effect, 6/18, p.97
Economic stabilizing patterns, U. S. Steel report, 3/26, p.87
Electric tools, 2/27, p.75
Erectors, 6/11, p.71
Extrusions, 5/14, p.70
Farm equipment, 2/13, p.46; 5/14, p.74
Fasteners, bolt and nuts, 1/23, p.115
Ferroalloy sales, 5/28, p.187
Floor trucks, 2/27, p.81
Gage and inspection devices, 1/16, p.40
Gas appliances, 2/20, p.70
Home modernization, package prices, 2/6, p.76
Industrial distributors, 5/28, p.67
Industrial heating equipment, 1/23, p.51; 5/28, p.60
Industrial Neucleonics, sales doubled yearly, 5/28, p.69
Industrial scales, 2/27, p.81
Industrial steel products, 1/30, p.41
Intercoms, 1/16, p.48
LP gas sales, 1/16, p.43
Lift truck sales, 2/13, p.52
Machine tool orders, shipments, '56 outlook, 1/16, p.37; 4/2, p.47; 4/30, p.53
Machinery, 2/27, p.64; 5/21, p.71
Mechanical tubing, 4/23, p.177
Metal cans, 2/27, p.73
Metal powders, 4/2, p.139; 1/16, p.41
Metal reel, spool sales, 4/30, p.71
Metal spinning, 1/30, p.50
Metallizing equipment, 4/23, p.70
Molybdenum markets, 4/9, p.175
Oil country goods, 2/27, p.167
Outboard motors, 6/25, p.52
Paper machinery, 6/25, p.58
Plastic pipe, 5/21, p.72
Plastics, 3/26, p.88; 6/11, p.72
Plating sales, 2/6, p.80
Porcelain enameling, 4/30, p.70; 6/25, p.53
Power boats, 3/26, p.91
Presses, mechanical - hydraulic, 4/16, p.63
Pressure pipe castings, 3/12, p.86
Pressure tubing, 5/21, p.175
Refractories, 4/16, p.54
Roadbuilding equipment, 4/16, p.51; 4/23, p.69
Screw machines, 3/19, p.37
Screw parts, job shop sales, 4/2, p.65
Screw parts, industry report, 5/14, p.79
Shot and grit makers, 6/4, p.70
Solder, consumption by industries, 1/2, p.473
Stampers, 3/26, p.96
Tool and dies, 1/16, p.49; 6/25, p.51
Transistors, diode output, 3/5, p.54
Used tools, 1/23, p.50
Welder sales, 3/26, p.90
Weldments, 3/12, p.87
Wire fabric, 1/30, p.133

Business & Defense Services Adm.:
Appointments:
Crosby, 3/19, p.50
Fowles, 2/13, p.48
Macauley, 3/26, p.92
Malborn, 4/23, p.72
Martin, 4/16, p.58
Pommer, 2/27, p.76
Schmied, 6/25, p.54
Stuart, 1/9, p.34
Van Rensselaer, 2/20, p.72
Williams, 2/20, p.72
Nickel buyers misuse defense ratings, 2/27, p.63
Rolling mill equipment study, 3/12, p.90
Setasides shift, 1/30, p.33
Setasides formula for mills studied, 2/20, p.59
Steel producers' identification symbol "FC", 4–9, p.72
Tool and die shops survey for buyers guide, 2/13, p.48
Used drums release sought, 3/19, p.46
Weldment producers priority for raw materials, 4/9, p.59

Business Consultants:
Visioneering Co., design consultants, 4/23, p.71

Business Machines:
See Office Data
See Orders—Invoicing

C

Cameras:
Die cast parts, 2/13, p.95
High-speed camera, shutter detection, 6/18, p.181

Canada:
A giant waking up, industry growth, 4/16, p.56
Auto production, 1/2, p.178
Continuous galvanizing, Steel Co. of Canada, 2/27, p.118
Editorial (Our Stake in Canada), 4/16, p.49
Employment figures, 1/30, p.34; 4/30, p.34
Mines hit record, 1/23, p.50
Steel imports, exports, 4/23, p.67
Steel shortage, 2/20, p.60
Structurals, gray market prices, 3/19, p.55
Titanium pigment plant, B, 4/30, p.88
U. S. metalworking exports to Canada: Star customer, 4/23, p.67

Capacity:
Aluminum ingot, U. S. (companies), 2/6, p.77
Copper, world capacity, 1/9, p.32; correction, 1/16, p.38
Detroit Steel blast furnace, 1/23, p.43
Steelmaking, U. S., 1/9, p.102
Steelmaking, ten largest companies, firms adding capacity, 1/23, p.43
Steelmaking by states, 2/6, p.69
Steelmaking (firms) 15 years forecast (chart), 3/5, p.62

Capital Expenditures:
1956 forecast: Big expansion means upturn, 3/26, p.85
Auto firms, 3/26, p.99
Canada (1946-56), 4/16, p.56
Chemical industry, 5/14, p.62
Chicago purchasing agents' estimate, 2/20, p.59
Electric utilities, 1/16, p.43
New plant and equipment, manufacturing vs. all industries, yearly totals, 1/2, p.192
New plant and equipment (chart), 6/18, p.101
Oil refining industry, 5/28, p.70
Steel expansion, new equipment and construction outlook, 3/5, p.63

Capital Goods:
Export shipments up, 4/2, p.60

Carbides:
A guide to tool steels and carbides, 3/12, p.127
See Tools (Cutting)

Carbon Steels:
Carbon in steel analyzed, 3/19, p.114
You can shell mold low carbon steel, 3/19, p.97

Carborizing:
Gear carborizing: Automated furnace with flexibility, 3/19, p.109

Case Institute of Technology:
Distribution communication: Hollister, 5/14, p.107
Structural fasteners, four to choose from: J. B. Scalzi, 5/21, p.112
Studies strength in metals, ENG, 3/5, p.91

Cast Iron Soil Pipe Institute:
Elects, B, 1/9, p.55

Caster & Floor Truck Manufacturers Assn.:
Floor truck-casters, industry report, 2/27, p.81

Casting, Castings:
Beryllium-copper cast taximeters-parts, 1/23, p.81
Cast-in stainless wire thread inserts anchor costs, 4/9, p.128
Centrifugal castings, industry report, 3/12, p.86
Color-coded castings, 3/26, p.191
Continuous casting of aluminum, 4/2, p.96
Continuous casting machinery for semifinished steel (study), 3/5, p.45
Crankshafts cast of shell molded Armasteel, 3/19, p.57
Crankshafts with a future, malleable teamed with shell molding, 6/4, p.117
Cupola dry blast assures uniform microstructure for piston rings, 4/9, p.140
Glass powder molds, ENG, 5/14, p.117
Heat treating steel castings, 1/23, p.84
Impregnating seals and saves porous castings, 5/14, p.133
Investment casters bid for new role, 2/20, p.122
Investment casting stainless impellers, ENG, 1/23, p.69
Permanent molds for aluminum castings, 1/16, p.88
Sand casters add titanium to aluminum, 2/20, p.130
Shell mold process for low carbon steel (Steel Founders' Society), 3/19, p.97
Shell mold makes large shells, ENG, 4/30, p.91
Steel castings, industry forecast, 4/2, p.64
Technical progress, YC, 1/2, p.224
Vacuum cast forging ingots, 6/4, p.112
Zircon sands in molds improve steel castings, 2/27, p.121
See Diecasting

Census:
Home ownership, Census Bureau, 5/7, p.47
Population, people of marriageable age (20-24 years), customer outlook, 2/13, p.83

Ceramic Tools: See Tools (Cutting)

Chain:
Chain parts colored twice as fast (conveyor for roller chain parts), 6/11, p.116

Chamber of Commerce:
1956 business outlook, 6/25, p.54
Home improvement spending estimated, 1/16, p.31

Charts, Tables:
Aluminum on 1956 cars, 1/16, p.51
Auto timetable for '57 models, 3/12, p.84
Automation markets, 2/27, p.72
Capital expenditures, 1/2, p.192; 3/26, p.85; 6/18, p.101
College recruiting quide, 1/23, p.40
Engineering jobs delegated to technicians, 5/7, p.53
Finished steel distribution, 3/19, p.154
Finished steel shipments—'55, 2/20, p.192
Finished steel shipments—Jan., 3/19, p.165
Highway equipment, 4/16, p.52
Machining comparison chart for aluminum bar stock, 3/26, p.140
Metal can shipments, 2/27, p.74
Metal powder shipments, 4/2, p.139
Metalworking earnings, 1st half (selected companies), 2/13, p.41
Metalworking exports to Canada, 4/23, p.67
Metalworking exports abroad, 4/23, p.65
Office cost control, eight steps, 4/9, p.76
Pay increases: Steel vs other industries, 5/14, p.68
Selected steel producers, annual earnings, 2/6, p.78
Small business trouble points, 4/16, p.57
Solder consumption by industries, 1/2, p.473
Stainless finishes, 2/13, p.93
Steel hourly earnings, wage boosts, 5/14, p.67
Steel ingot capacities, where increased (firms), 3/5, p.62
Steel ingots, 1/16, p.123; 2/20, p.188; 3/19, p.162; 4/16, p.146; 4/30, p.161; 6/18, p.234
Steel product shipments, 2/20, p.192; 3/19, p.165; 4/23, p.180; 5/21, p.183
Steel workers hourly pay, 4/9, p.66
SUB, features of the major plans, 3/5, p.52

Chemicals:
1956 capital expenditures, 5/14, p.62
Corrosion acids handled by plastic piping, 3/5, p.123
Corrosion chemicals handled by plastic pump, 1/30, p.108
Degreasing cost controls, 6/18, p.184
Dry chemical piped to fire, 6/4, p.102
Rust inhibitor packaging: Bagged crystals, bottle spray powder, 5/14, p.148

Clad Metals:
Clad metals show gains, 1/23, p.44

Cladding:
Bart Mfg. electrocladding: Plating pit-free, heavy nickel, 1/30, p.98
Hortonclad process, titanium coat on steel, ENG, 4/2, p.95
Whirlclad (German process): Plastic overcoats for metal, 2/20, p.114

Cleaning, Blasting:
Cupola dry blast for piston rings, 4/9, p.140
Liquid abrasive blasting (liquid honing), for better surfaces, 1/9, p.71
Mill rolls get fast blast (matte finishes), 5/14, p.128

Cleveland Society of Security Analysts:
Meeting, Kaiser spokesman, 5/14, p.68

Coal:
Coal mining mechanization, 2/6, p.75
Colombian IHFS coal mines seek U.S. management aid, 5/7, p.59
Combo formed for coal exporting, 6/25, p.59
Co-op deals, companies, 1/30, p.33
Co-op deals, Pittsburgh Consolidation, 4/30, p.33
Production outlook, 1/9, p.21
Freight rates alarm coal haulers, 3/26, p.89
Research sought by Bureau of Mines, 5/21, p.75
See Pipelines

Coatings: See Finishes

Coke Ovens:
Great Lakes Steel contracts, B, 1/30, p.70

College Graduates:
College recruiting guide, 1/23, p.40
Companies offering tuition-aid plans, 3/5, p.45

Color:
Casting color-coded, checkerboard alloys, 3/26, p.191
Gold anodized aluminum, variety of shades, 3/12, p.88
Machinery color reduces eye fatigue, 3/19, p.116
Rolled-on colors tone up production (strip), 4/30, p.96
Roller chain parts, conveyor line, 6/11, p.116
Steel color code, Ryerson, 5/21, p.75
Stitching wire colors, ENG, 4/23, p.115

Columbium:
Columbium-tantalum supplies, 4/2, p.54
Columbium-tantalum supplies, foreign sources, 4/16, p.141

Communications:
Business executive, cost of communicating, 1/23, p.34
Distribution communications: Metalworking goes to market, 5/14, p.107
Intercom equipment, industry report, 1/16, p.48

Components:
Industrial components, quarterly survey, 1/9, p.39; 4/2, p.63

Compressed Air:
Air tools for fastening, multi-spindle machines, 1/9, p.66

Computers: See Counters, Computers

Construction:
Architects approve porcelain enamel-metal curtain walls, 6/25, p.53
Chemical construction projects, 2/6, p.69
Construction backlogs high, 1/23, p.34
Parking garages, 6/18, p.102
Reinforcing bar demand, 5/14, p.207
St. Louis terminal, 2/13, p.132
Shopping centers, 2/6, p.70
Studs used as shear connectors for buildings, bridges, 2/6, p.81
TWA hangar roof struts of steel strands, 5/21, p.120
Wire fabric market, 1/30, p.133

Construction Equipment: See Earthmoving Equipment

Consumer Goods:
Buying hits record, 4/2, p.48

Consumer Spending: See Business

Consumption:
Aluminum, world consumption, 3/19, p.144
Copper, 1970 per capita consumption, 3/12, p.222
Ferroalloy consumption, 5/28, p.187
Lead, zinc (chart), 5/14, p.196
Nonferrous scrap, 3/26, p.89
Solder, consumption by industries, 1/2, p.473
Steel by 1975, 6/25, p.42

Containers: See Packaging

Contract Packaging:
Package deal for industry, 2/20, p.67

Controls:
Drill has dial controls, 4/23, p.138
Numerical controls for machines, 3/26, p.154
Tape directs the conveyor, 5/28, p.126
Temperature controls (see Heat Treating)

Convector Manufacturers Assn.:
Elects, B, 3/19, p.78

Coolants: See Lubrication

Copper:
1970 forecast, per capita consumption, 3/12, p.222
Airport terminal features copper and its alloys, 2/13, p.132
Beryllium-copper (see)
Copper expansion coming (new mines), 1/9, p.32
Copper ore from Haiti, 5/7, p.59
How to choose the right copper (commercially available and engineering properties), 5/7, p.94
Mill setasides, 2nd quarter, 2/27, p.63
World production, 1/23, p.104; 2/27, p.156; 4/23, p.166
World capacity '58 (correction), 1/16, p.38
World stocks grow, 5/21, p.75

Copper & Brass Research Assn.:
Article: How to choose the right copper, 5/7, p.95
Elects, B, 6/4, p.95

Copper & Brass Warehouse Assn.:
Elects, B, 5/7, p.86

Copper Institute:
Copper stocks grow, 5/21, p.75

Corporation Size:
H. K. Porter Company (Evans) before House committee, 1/30, p.34

Corrosion:
Build corrosion resistance into stainless, fabrication techniques, 4/9, p.116
NACE meeting report, 4/9, p.69
Rust inhibitor packaged in shaker bags, spray bottles: For stored machinery, tools, 5/14, p.148

Cost Studies:
Break the cost barrier (editorial), 3/19, p.41
How to control degreasing costs, 6/18, p.184
Know your costs (management series), 3/19, p.83
Know your costs (editorial), 7/25, p.39
Nomograph for grinding costs, 2/6, p.118
Office costs: Use engineering, save money, 4/9, p.76
What cost price fighting? 7/25, p.41

Counters, Computers:
Airway traffic computers, 4/9, p.72
Bay State Abrasive computers, 3/12, p.94
Computer calculates formulas for grinding wheels, ENG, 1/16, p.67
Computer sets Bullard schedule, 4/16, p.103
Computers unstable when fed distorted electric power, 3/26, p.125
Electronic data processing systems, AMA report, 3/5, p.55
IBM computer "flies" jet in design stage, 2/27, p.116
IBM's DeCarlo sees computers in production problems, 3/5, p.102
Machinability, GE-Carboloy, 3/19, p.100

Crankshafts: see Casting

Credit:
FRB surveys consumer credit, 2/27, p.64
FRB surveys credit financing, 5/28, p.63
Metalworking credit: A-2, 2/13, p.43

Curtain Walls: See Construction

Customer Relations:
Eastern Brass president plans luncheons, 6/4, p.71

Cutting, Shearing:
TV aid in shearing hot slabs, 2/20, p.119
Cutting (See Tools-Cutting)

D

Defense:
A-bomb defense: Operation Alert schedule, 4/23, p.60
Air Force "production readiness" program, 1/16, p.44
Defense spending (Eisenhower's proposed budget), 1/23, p.45; additional funds asked, 4/16, p.58
Defense spending increase due, 2/6, p.82
Defense spending, 2/20, p.69
Machine tool policies (see ODM)
Missile chief Murphree, appointment, 4/16, p.58

Defense Contracts:
AF contracts, 6/18, p.98
Contract packagers, 2/20, p.67
Renegotiation Act re-evaluated, 6/18, p.184
Small business better with negotiated contracts, 6/4, p.66
Specifications involved, 4/16, p.93
Studebaker-Packard, jet engines, 6/18, p.112

Degreasing:
How to control degreasing costs, 6/18, p.184

Design:
Design consultant handles product development, (Visioneering), 4/23, p.71
Design for heat transfer, 5/14, p.122
Design with man in mind (automatic machines), 6/18, p.148

Desulphurizing:
Carbide brings the sulphur down, 3/5, p.100

Diecastings:
1955 industry report, job shop sales, 3/19, p.55
Auto zinc diecast parts, 5/28, p.79
Die cast mechanism handles awning windows, 2/20, p.142
Diecastings in the picture (movie camera and projectors), 2/13, p.95
Doehler-Jarvis facilities, 4/9, p.93
Doehler-Jarvis V-8 engine block, 4/23, p.68
Gasoline pump meter has 12 diecastings, 2/6, p.135
Hot chamber diecasting, magnesium industry experiments, 1/16, p.41
Lee Silver Service, small firm automates, 1/30, p.44

Die Forging:
Closed-die forging presses operating in U. S.: Heavy presses forge a future, 1/9, p.74

Dies: See Tools & Dies

Distribution:
See Communication Distribution
See Warehousing, Distribution

Diversification:
Auto parts industry benefits, 3/19, p.37
Bridgeport Brass buys Hunter Douglas (aluminum blinds-awnings), 6/25, p.53

Do-It-Yourself:
Electric tool sales, do-it-yourself builds market, 2/27, p.75
Machine tool building blocks, 6/25, p.92
Make-your-own automatic welder, 3/19, p.120
Press brake dies, 3/26, p.152

Drawing:
How to draw titanium, 5/7, p.98

Drilling:
Precision drilling thermocouple tubes in insulating rods, 2/27, p.127
See Oil-Gas Industry

Drop Forging Assn.:
Drop forgers, industry outlook, 3/5, p.153

Dust Collectors & Filters:
Cottrell precipitators (Noranda Smelter) returns dust to sulphide roasting furnaces, 4/30, p.109
Kaiser precipitators, open-hearth smoke control, 4/16, p.100
U. S. Steel electrostatic precipitators, ENG, 4/23, p.115

E

Earnings: See Financial

Earthmoving Equipment:
1955 shipments, 1/2, p.172
Crane on rubber tires 50-ton, ENG, 6/4, p.101
Road construction equipment demand as highway program readies, 4/16, p.51
Road machines hit pay dirt, 4/23, p.69

Edison Electric Institute:
Electric utilities expenditures, 1/16, p.43

Editorials:
Boom or Bust? (U. S. Steel report), 3/26, p.83
Break the Cost Barrier, 3/19, p.41
Case for the Craftsman (skilled worker shortage), 4/9, p.63
Credit too tight? 5/28, p.63
Handling Unlimited (costs), 6/11, p.65
Holding Your Market? 4/30, p.57
Horizons Unlimited (metalworking), 6/18, p.95
Ideas for Free (brainstorming), 4/23, p.63
Industry's SUB for GAW, 3/5, p.49
Investing in Steel's Growth, 4/2, p.51
It Could Happen Here (obsolete tools-defense), 2/20, p.63
Let's Make Steel! (strike outlook), 5/7, p.51
Meeting the Challenge (Russia's engineer), 1/23, p.37
Milestones or Millstones? (analyzing distribution), 2/27, p.67
Mutual Understanding (Portsmouth labor-management), 3/12, p.81
New Look in Leadership, 6/4, p.57
Our Stake in Canada, 4/16, p.49
Plan Your Growth, 2/13, p.39
Please the Customer (GM tech center), 5/21, p.67
Scrap, too high?, 1/16, p.35
Selling in '56, 1/30, p.37
Team pay for teamwork (selling compensations), 1/9, p.25
The Bumblebee Still Flies, 6/25, p.45
Tune In on Users (distribution), 5/14, p.65
What's competition (Alcoa antitrust), 2/6, p.73

Electric Power:
Aluminum Ltd. hydroelectric project, 5/7, p.146
1966 consumption forecast, industry to add generating capacity, 5/7, p.57
Nation's power consumption, 4/23, p.60
See Power Plants & Generators

Electric Tools:
Industry report, do-it-yourself trend builds market, 2/27, p.75

Electrical Equipment:
Anodized aluminum wire (ac process) gives insulation coat to electrical equipment, 3/26, p.80
Aluminum switch, ENG, 4/2, p.95
Conduit and cable of expanded metal, ENG, 5/7, p.93
Home wiring, 2/13, p.42
Transistors, diodes, 3/5, p.54

Electrocladding:
Bart Mfg. sheet and plate, 1/30, p.98

Electronics:
1956 equipment forecast, 6/18, p.91
Industry report, RCA, 3/19, p.37
Electronic data processing system: Fewer clerks, more data, 3/5, p.55
Electronic eye lights machinery, ENG, 6/4, p.101
Numerical controls for machining, 3/26, p.154
Phototransistors detect heat in metals, ENG, 1/30, p.83
Post Office handling devices, 2/6, p.70
Tape aids metalworking, 1/16, p.42
Tape directs the conveyor, ASSET (warehouse package handling), 5/28, p.126
Translater, Russian into English, ENG, 6/25, p.79
See Counters, Computers

Electroplating, Plating:
Chromium plating rocket motors (Ryan Aero.), 1/16, p.74
Plating equipment sales, 2/6, p.80
Plating pit-free, heavy nickel, 1/30, p.98
Wire plating line, 1/16, p.90
Wire spirals through plating bath (nickel on steel wire), 6/11, p.129
See Wastes

Electrostatic Coat:
Porcelain: Put it on electrostatically, 4/9, p.115
Painting Mixmaster: Savings, plus quality, 3/26, p.149

Electrotinning:
Electrotinning tightens wire coating control, 1/16, p.90

Employee Relations:
Inco program, 2/20, p.76

Employee Violations:
Shop rules help curb practices (chart), 5/28, p.76

Employment, Unemployment:
Canadian employment, 1/30, p.34; 4/30, p.34
Employment figures, 4/16, p.45
Metalworking employment, 1/2, p.184
Nonfarm employment, 1/23, p.34
U. S. total employment, 1/2, p.185
Unemployment report, 3/26, p.87

Engineers:
Aircraft employment, 1/30, p.34
Engineering needs: Where graduates go (chart), 5/14, p.73
Engineer numbers increase, 4/30, p.34
Engineer poll recommended by Brig. Gen. Sarnoff, 5/14, p.71
Engineer shortage: ASME report on educational standards in schools, 4/2, p.54
Engineer shortage symptomatic, Roger Blough report, 2/6, p.81
Engineers' union reject AFL-CIO affiliation, 5/14, p.62
Great Britain's shortage, 6/25, p.41
NLRB ruling on professionals unionizing, 3/19, p.37
Russia-U. S. ratio of engineers and scientists, 4/9, p.60; 5/7, p.55
Technicians (extra hands for engineers), how to find, train and use them, 5/7, p.53

Erectors:
Machinery erectors, industry report, 6/11, p.71

Europe:
European Community SUB, 6/11, p.70
More steel for Europe (chart), 3/12, p.95
Steel capacity, 4/16, p.46
Steel price boost, 5/28, p.60

Expansions:
Air Reduction, $16 million, gas producing facilities, 1/23, p.66
Aluminum ingot capacity, 2/6, p.77
American Brass modernization, 4/30, p.87
Auto firms, capital expenditures, 3/26, p.99
Bethlehem Steel, $300 million, 2/6, p.79
Borg-Warner, $25 million, 4/16, p.79
Copper expansion (supplies, capacity), 1/9, p.32
Detroit Steel, $20 million, Portsmouth Wks., 3/12, p.116
Doehler Jarvis, 4/9, p.93
Europe's expansion (chart), 3/12, p.95
GE five-year plan, 6/18, p.129
GE foundry research lab, 1/9, p.54
IBM, $15 million, West Coast, 2/13, p.42; 3/5, p.80
Industries need expansion capital, 4/16, p.45
Koppers, $25 million, 1/16, p.64
Lewyt, $10 million, 1/23, p.67
Metalworking expansioneering, how to plan your growth, 1/2, p.101
Metalworking, it's time to grow, 2/13, p.81
Northeastern Ohio, 6/11, p.67
Ohio plants, 1/23, p.33
Ohio valley, 6/18, p.108
Oil refining industry, 5/28, p.70
Power companies, 6/11, p.62
Republic annealing unit, 5/28, p.93
Republic boosts program, 1/30, p.33; 2/6, p.79
Reynolds Metals, $43 million, 3/12, p.111
South America, steel expansions, 5/21, p.74
Steel companies, 1/9, p.21
Steel industry, ten largest companies (AISI survey), 1/23, p.43
Steel industry: (Chart) Where ingot capacities are being increased, 3/5, p.62
Texas coast, new plants, 4/23, p.70
U. S. Steel, costs for increased ingot capacity, next ten years, 5/14, p.68
U. S. Steel openhearths, 3/19, p.46
Youngstown Sheet, Youngstown area, 4/23, p.59
See Capital Expenditures

Exports & Imports: See Foreign Trade

Executives: See Management

Extrusions:
Boltmaker machine, double extrusion process, 6/18, p.166

Extrusions solve problems (industry report), 5/14, p.70
Harvey Aluminum titanium facilities, 4/2, p.100
Wide aluminum extrusions, uses recommended, 1/16, p.79

F

Fabrication & Assembly:
Aircraft jet engines: Tailored tools meet schedules, 4/9, p.132
Aircraft jet engines: Tighter fits for fittings (sleeve presetter), 5/7, p.111
Bolts-nuts: How tight is tight? 2/27, p.114
Buick axle housings, 2/13, p.97 and 1/30, p.90
Carrier heating coil fins: Where stamping and assembly meet, 6/18, p.160
Chevrolet frame assembly-construction, 2/13, p.55
Douglas giant fabrication line, 1/9, p.72
Fastening in a hurry, multiple tools, 1/9, p.66
Jettisonable fuel tanks, special tooling, 1/16, p.88
TV cabinet, wood and metal, 3/19, p.98
Tips for better weldments, 4/23, p.132

Fans, Blowers:
Blower sales, industry report, 4/30, p.65

Farm Equipment:
Farm machinery-equipment shipments, 1/2, p.181; 2/13, p.47; 5/14, p.74

Fasteners, Fastening:
Aircraft bolt hits new highs, weight-size reduction, 6/4, p.114
Bolt and nut industry report, 1/23, p.115
Boltmaker, cold forging machine, 6/18, p.166
Bolt-nut tightening (Ford): How tight is tight? 2/27, p.114
Bolt tightening, preload indicating washer, 4/16, p.114
Fastening in a hurry: Multiple tool units, 1/9, p.66
Machine bolt or capscrew? 6/18, p.175
Structural fasteners: Four to choose from (chart), 5/21, p.112
Studs are shear connectors for buildings, bridges, 2/6, p.81
Tighter fits for fittings (sleeve presetter and shorter nut), 5/7, p.111
Titanium bolts, aircraft use, ENG, 4/23, p.115

Field Warehousing:
Metalworking credit A-2, 2/13, p.43

Financial Analysis:
Annual analysis of steel industry, 4/2, p.92
GE employees, annual earnings, 3/19, p.37
GNP, 1935-'55, 1/2, p.189
GNP, '56 forecast, 6/18, p.91; 4/2, p.47
GNP: Looking ahead 40 years, 6/11, p.68
Manufacturing profits, two periods, 3/12, p.89
Metalworking outlook 1st half for selected companies, 2/13, p.41
Metalworking earnings 1st half, 2/13, p.41
Metalworking earnings, 2nd quarter, 4/23, p.59
Steel companies' earnings, expansion plans, 1/30, p.33
Steel earnings-'55, selected companies, 2/6, p.78
Steel earnings-'56, 1st quarter, 4/30, p.63
Steel earnings price index, finished steel, 5/21, p.69

Finished Steel:
1955 shipments by types, YC, 1/2, p.154
1955 shipments: Distribution by market classification (chart), 3/19, p.154
1955 shipments, '55, 2/20, p.192
1956 shipments, 3/19, p.165; 4/23, p.180; 5/21, p.183
Finished steel price index, steel hourly earnings, 5/21, p.69

Finishes, Coatings, Paints:
Anodized aluminum trim for auto grilles, 2/27, p.110
Anodized gold aluminum (Kaiser), variety of shades, 3/12, p.88
Black (oxide) finish with a bright future, 1/23, p.72
Blast furnace plastic coating, shut down period, 3/26, p.134
Ceramic finish circulating system, 6/18, p.186
Colored process for roller chain parts, 6/11, p.116
High temp. paint, ENG, 6/4, p.101
Paint, two-color speckled, ENG, 6/25, p.79
Painting Mixmaster, electrostatic spray, 3/26, p.149
Plastic overcoats for metal (Whirlclad, German process), 2/20, p.114
Porcelain ceramic disc, electrostatic coat at GE Appliance Park, 4/9, p.115
Rolled-on colors tone up production (continuous strip coating line), 4/30, p.96
Silicones in metalworking, 151 uses, 3/5, p.92
Stainless steel finishes: The finish that fits, 2/13, p.92
Zinc-coated steel strip and sheets from continuous galvanizing, 2/6, p.122

Fire Equipment:
Dry chemical piped to fire, 6/4, p.102
Fire door closing system is collision-proof, 2/6, p.124
Scooter converted to fire truck, ENG, 6/4, p.101

Fire Equipment Manufacturers' Assn.:
Elects, B, 4/30, p.88

Fittings: See Pipe, Tubing, Fittings

Flame Cutting:
Hot cropping for top ingot yield, 4/30, p.92
Oxyacetylene blowpipe cuts concrete, 3/5, p.116
Mechanical scarfing: The rush is on (Irwin Such addresses IAA), 4/2, p.104

Flame Hardening:
Flame hardening upgrades gears, 2/6, p.120

Flame Plating:
Drills flame plated, ENG, 3/19, p.93

Floods:
Federal flood insurance bill submitted, 2/20, p.76
Navy plans, West Coast flood area plants, 1/30, p.51

Foreign Trade:
American investments abroad, 6/25, p.54
Argentina trade, advice on exports, 5/7, p.59
Automatic Tool, foreign dealer sales, 6/18, p.99
Civilian aircraft exports, 6/4, p.54
Export-Import Bank loans to South American steel firms, 2/20, p.76
GE exports steam turbine generators, 3/26, p.97
Metals, export quotas, 1/16, p.38
Metalworking activities overseas, laws set, 2/20, p.77
Metalworking exports: U. S. competes abroad, 4/23, p.65
Metalworking exports: Canada, star customer, 4/23, p.67
Scrap exports, Europe's need, 4/16, p.46
Scrap export licenses, 4/23, p.60
Scrap restrictions urged by Moreell and Weir, 5/21, p.64
Scrap restrictions vetoed by Barringer, 5/28, p.59
Scrap survey to determine extension of control act, 5/7, p.60
Senators object to strategic materials to Iron Curtain, 4/2, p.48
U. S. spending, not enough? 4/2, p.59
Venezuelan trade listed in Commerce book, 5/7, p.59

Foremen:
Average foreman profile, salaries, 2/13, p.44

Forging:
Dornin process for ingots, 6/18, p.158
Embossing quality forged in, 3-dimensional patterns in sheet metal, 2/13, p.102
Forged rolls, Ohio Steel Foundry, 4/23, p.124
Heavy presses forge a future (die forging), 1/9, p.74
Scale problem solved by furnaces, 6/25, p.86
Titanium forgings with a pedigree: (Harvey Aluminum, sponge through fabrication), 4/2, p.100
Vacuum casting forging ingots, 6/4, p.112

Forming, Bending:
How to form titanium, 5/7, p.98
Mechanical and hydraulic presses, industry report, 4/16, p.63
Shell forming: Some like it hot, some like it cold, 2/27, p.128

Foundries:
Chemical dehumidification assures uniform microstructure in piston ring casting, 4/9, p.140
GE remolds a foundry, Elmira, N. Y., 1/9, p.60
GSA auctions New Castle foundry. (See General Services)
Steel castings price up due to high scrap rate, 1/30, p.40
You can shell mold low carbon steel, 3/19, p.97
See Casting, Castings

France:
Car-truck output, 6/4, p.54
Steel prices, 5/21, p.70

Freight Cars, Freight Rates:
1955 yearend totals: Car order backlogs soar, due to steel shortage, order surplus, 1/9, p.30
1956 outlook: 1955 carloadings, intercity freight traffic, 2/13, p.47
ACF flat car, orders, 1/23, p.42
Chicago, Rock Island cars, piggyback, other uses, 1/16, p.49
Coal freight rates up, 3/26, p.89
Freight car deliveries, 6/25, p.42
Freight rate boost, 5 per cent average, 3/12, p.89
Freight rate boost, possible price effect on steel mill products, 1/30, p.39
Freight rates due to rise, 1/9, p.22
Piggyback:
ACF builds flat-car "Adapto," 1/23, p.42
Number of railroads using, 1/9, p.30
Southern area truckers, rail increase, 2/13, p.36

Fringe Benefits: See Labor

Fuels:
LP gas sales, 1/16, p.43
Low-temp fuel research (U. of Wis.), ENG, 4/16, p.91
Oil expansion forecasts, 2/13, p.35

Furnaces, Ovens (Heating, Heat Treating):
Automated furnace with flexibility (gear carburizing), 3/19, p.109
Electrics move ahead, 4/9, p.120
Furnaces whip scale problem, Webb Forgings, 6/25, p.86
Induction furnaces (Eastern Stainless), 4/16, p.57
Induction furnaces (Empire Steel), 5/7, p.81
Industrial furnace sales, 1/23, p.51 and 5/28, p.60
Portable oven: Shrink fitting bearing assemblies, 1/30, p.88
Republic's continuous carbon correction annealing furnace, 5/28, p.93
Scale-free heating in direct-fired furnace, 3/5, p.105
Spaceheaters that shine: Overhead, infrared heater, 3/26, p.146

G

Gages:
1956 sales forecast, 1/16, p.40
Precision gage accuracy, 6/25, p.94
Precision grinding, 1/23, p.70
Radioactive thickness gage, 4/16, p.98
Sheffield's new lab measures with light to millionth of inch, 2/27, p.124
Surface checking comparator specimens, 2/20, p.112
Thickness gage measures nonmagnetic films, 4/9, p.138

Galvanizing:
Continuous galvanizing hits its stride, 2/6, p.122
Continuous galvanizing line (Stelco): More galvanizing for Canadian markets, 2/27, p.118
Salvaging top skimmings, ENG, 5/7, p.93

Gas:
LP-gas sales up, 1/16, p.43
LP-gas for handling trucks, 2/20, p.126

Gas Appliance Manufacturers Assn.:
Gas appliance forecast, 5/7, p. 47
Gas heat forecast for homes, 4/9, p.60

Gears:
Automated gear production, 1/9, p.58
Automated gear production, carburizing-furnace with flexibility, 3/19, p.109
Flame hardening upgrades gears, 2/6, p.120
Gearmakers, business meeting, 6/11, p.73
Gear teeth: How metallography helps sintering, 5/21, p.110
Shaving keeps gears in mesh, 4/9, p.118

General Services Adm.:
Auctions foundry, New Castle, 4/9, p.60; seeks advice of Congress, 4/30, p.33 and 1/30, p.33; Mesta high bid, 4/30, p.62
Nicaro project may be sold, 5/14, p.196
Sale of palm oil, 2/13, p.48

Geographical Area:
Northeastern Ohio expansions, 6/11, p.67

Germany:
Continuous mill-U.S. agreement: Armco licensing, Continental Foundry equipment, 2/13, p.53
Flick interests, Krupp holdings, 4/16, p.46
Krupp steel plant in Brazil, 3/12, p.95 and 1/23, p.34
Steel expansions (chart), 3/12, p.95
Steel expansions, 6/11, p.62
Steel imports, 2/20, p.60
Steel order backlogs, 2/13, p.53

Government:
1956 outlook, politics, business, YC, 1/2, p.114
Airport construction funds, 6/18, p.92
Antitrust:
Alcoa suit, Justice Dept. action, 2/6, p.77 and editorial on p.73
Bill aims at company officials, 4/2, p.60
Congressmen blast consent decree for AT&T and Western Electric, 4/23, p.72
Evans (Porter president) before House Committee, 4/30, p.34
GM monopoly challenged, 4/30, p.54
GM, another investigation sighted, 5/21, p.64
IBM-Sperry Rand charges, 6/18, p.92
Rubber V-Belt makers charged, 6/11, p.74
Auto distribution, Monroney bill, 6/18, p.92
Auto distribution, Big Three object, 6/25, p.62
BLS:
Injury-frequency rate, 4/16, p.54
Bureau of Mines:
Coal research urged, 5/21, p.75
Cataloging and standardization programs, 2/27, p.76 and 4/2, p.57
Compensation benefits for unemployed, maximums, 1/16, p.31
Construction funds, 4/23, p.72
Credit control, 6/11, p.74; 6/18, p.104

Code: B—*Briefs;* ENG—*Engineering and Production News;* IE—*Industrial Equipment;* YC—*Yearbook Comment*

Douglas: Senate Finance Committee, 6/4, p.53
Economic Advisers, Burns heads, 6/11, p.74
Federal Reserve Bd.:
Industrial prices, average rise, 2/6, p.76
Flood insurance bill submitted, 2/20, p.76
FRB blamed for housing, 5/21, p.76
FRB: Rediscount rate policy, 5/28, p.63
GI loans status, 4/23, p.72
Highway program ready to roll, 4/16, p.51
Hoover Commission:
Congress approval slow, Kestnbaum report, 3/26, p.92
ICC:
Freight rate increase, average boost, 3/12, p.89
Labor & Public Welfare, labor appointment, 6/4, p.53
Legislative prospects, YC, 1/2, p.118
IRS rules, SUB, 4/16, p.58
IRS rules, depreciation, 6/4, p.66
Maritime: Shipbuilding contract with Grace Line, 1/23, p.34 and 1/30, p.46
Mergers:
Bill before Senate, 1/16, p.39
Bill may require 90-day notice, 2/13, p.36; 4/30, p.66
Budget set up to study, proscons, 3/12, p.90
Minerals:
Columbium, tantalum shortage, 4/2, p.54
Tungsten price supports, government program, 3/19, p.50
Missile chief-Murphree appointment, 4/16, p.58
Missiles studied, 3/12, p.77
NLRB:
Ruling on unionized professional employees, 3/19, p. 37
Truitt Mfg. ruling (financial records), 5/14, p.61
Vote on union representation, 5/14, p.61
Supreme Court rules on States ban of unfair labor practices, 6/11, p.61
Navy shipbuilding program ok'd, 2/13, p.48
Patents (see)
Preferential planning (see ODM)
Procurement (see)
Public Works funds, 1/30, p.46
Real estate inventory, 3/19, p.55
Renegotiation Act re-evaluated, 6/18, p.104
WOCs: Executive research wanted, 2/27, p.64; recruiting training 3/5, p.45
WOCs, compensation issue, 3/26, p.80
WOCs, financial interests filed, 4/16, p.58

Grain Bins:
U. S. program, 5/14, p.62
Graphs: See Production Charts

Gray Iron Founders' Society Inc.:
R. C. Meloy appointment, B, 5/14, p.100

Great Britain:
Balance-of-payment problems, export markets, 4/2, p.59
Blast furnace at Margam Works, 2/13, p.53
Engineer shortage, 6/25, p.41
Steel expansions, U. K. plans, 3/12, p.95
Steel expansions, U. K. plans, 2/20, p.77

Grinding Polishing:
Automatic grinding of V-8 engine crankshafts, 4/30, p.98
Electrical discharge grinding, 3/26, p.154
Gyrofinishing (GM Tech. Center): New abrasive polishing for auto and appliance trim before electroplating, 5/14, p.152
Nomograph for grinding costs, 2/6, p.118
Precision touch in grinding (Timken), 1/23, p.70
See Abrasives (sales)

Gross National Product:
See Financial

Guide:
A guide to tool steels & carbides (insert), 3/12, p.127

Guided Missiles:
Materials lab: Taming supersonic heat, 4/9, p.113
Murphree heads defense program, 5/21, p.76
U. S. spending, 3/26, p.80; 5/28, p.72

H

Hardening:
Flame hardening upgrades gears, 2/6, p.120

Hardness Testers: See Heat Treating

Heat Barrier: See Supersonics

Heat Transfer:
Design for heat transfer, 5/14, p.122

Heat Treating & Annealing:
Automated furnace with flexibility, 3/19, p.109
Forum on technical progress, YC, 1/2, p.266
Heat treat line for aircraft steels (Boeing), 5/14, p.124
Heat treating superstrength steels, 6/18, p.150
Inconel baskets for nitriding furnace loads, 3/5, p.122
Modern Heat Treating:
Basic Methods (1) Hardness testing, 6/25, p.98
Heat treating steel castings, 1/23, p.84
Temperature control of heat treating furnaces:
(1) Definitions, 2/13, p.108
(2) Thermocouples, 2/20, p.135
(3) Control instruments, 3/26, p.130
(4) Control elements, 4/2, p.110
(5) Control systems, 4/30, p.112
(6) Special systems, 5/7, p.116
More heat treatable titanium, 4/23, p.118
Scale-free heating of steel billets in a direct-fired (Equiverse) furnace, 3/5, p.105
Scale problem solved, Webb Forging, 6/25, p.86
See Furnaces
See Induction Heating

Heating:
Infrared lamps shrink fit bearing assemblies, 1/30, p.88
Spaceheaters, overhead, infrared, 3/26, p.146

Heavy Presses:
See Air Force program
See Presses

Honeycomb:
GE supersonic lab for jet aircraft honeycomb structures, 2/27, p.116
Honeycomb panels: On the threshold of a boom, 6/11, p.112

Honing:
Roughing to 10 microinches (Ohio Honing) seamless tubing, 4/2, p.102
Honing tackles a misconception, 4/23, p.116
Liquid honing smoothes the way, 1/9, p.71

Housing:
Census of house owners, 5/7, p.47
Electric heating market, 6/18, p.91
FRB blamed for slow housing, 5/21, p.76
GI loan program status, 4/23, p.72
Home improvement (modernization) market, 2/6, p.76
Home improvement spending, Chamber of Commerce estimate, 1/16, p.31
Home improvement spending, 6/18, p.91
Home wiring outlook, 2/13, p.42
New houses, 1955-'54, 1/2, p.192
New housing starts, 3/26, p.86
New housing starts, 4/30, p.34
Prefab forecast, 4/9, p.59
Public housing, Senate bill, 6/4, p.54
Veterans 30-year terms restored, 1/30, p.34 and 4/30, p.34

I

Illinois Institute of Technology:
Armour expansion program, B, 1/30, p.73
Armour metallurgy report, ENG, 1/30, p.83

Illinois Manufacturers' Assn.:
Elects, B, 1/9, p.55

Induction Heating:
Eastern Stainless furnaces, melting process, 4/16, p.57
Empire Steel furnaces, 5/7, p.81
Induction brazing method, 4/16, p.106

Industrial Components: See Components

Industrial Diamonds:
GE pilot plant, 5/14, p.62
Manmade diamond boom, ENG, 4/9, p.111
Mist coolant directs diamond chips in sludge, ENG, 4/30, p. 91
Standardizing diamond shanks, diamonds for small parts, 4/30, p.106

Industrial Distributors:
Industry report, 5/28, p.67

Industrial Fasteners Institute:
Yahres honored, B, 5/28, p.102

Industrial Health Congress:
Absenteeism report, 2/27, p.63

Industrial Heating Equipment Assn.:
Elects, B, 2/6, p.111
Industrial furnace orders, 1/23, p.51; 3/5, p.46; 5/28, p.60

Industrial Scales:
Industry report, 2/27, p.81

Industrial Steel Products: See Warehousing

Industrial Truck Assn.:
Lift truck sales outlook, 2/13, p.52

Ingots:
Continuous cast aluminum ingots, 4/2, p.96
See Steelmaking

Insert:
Financial analysis of steel industry, 4/2, p.92

Inspection, Testing:
Abrasion tester for porcelain enamel, 4/30, p.120
Automakers radiation detection, 6/25, p.61
Automakers automated all-electric tester, 6/18, p.163
Camera has shutter detection, 6/18, p.181
Carbon in steel—analyzer, 3/19, p.114
Comparator specimens assure good finishes on machined parts, 2/20, p.112
Hardness testing-modern heat treating, 6/25, p.98
Magnetic particle inspection: Where should you draw the line? 1/23, p.74
Metal fatigue testing, 1/16, p.68
Metal monitor identifies doubtful metal, 4/23, p.129
Micro-optical instrument for machinery erection, 3/19, p.122
Portable inspection tools: Surface indicator, metal monitor, 4/23, p.129
Radioactive thickness gage (checks metal computer tape), 4/16, p.98
Sheffield lab, measures to millionth of inch, 2/27, p.124
Spectrometer samples gases in vacuum melting, 5/7, p.100
Surface finish checked with gage blocks, 6/25, p.94
Surface finish Surfindicator, 4/23, p.129
TV joins X-ray to inspect appliance heating elements, 4/30, p.120
Tests that save: GE production line, nondestructive tests, 5/21, p.124
Titanium forgings' internal quality checked, 4/2, p.100
Westinghouse impact test, guillotine replaces Charpy test, 2/20, p.132
Window structurals, hurricane test, 5/14, p.160
Wire rope flaw detector, AS&W, 1/23, p.78
Wire tension measured by dynamometer, 5/14, p.146
See Gages
See Supersonics

Institute of Scrap Iron & Steel Inc.:
Barringer debates scrap export restrictions, 5/28, p.59
Predicts domestic consumption of purchased scrap, 2/20, p.59
Chicago convention, speakers, 1/9, p.33; elects, 1/16, p.65

International Acetylene Assn.:
Mechanical flame scarfing: Irwin Such report at meeting (Calif.), 4/2, p.104

Inventories, Deliveries:
Buyers' questionnaire for '56, 6/18, p.98
Steel, copper, aluminum, quarterly survey, 2/6, p.86; 5/7, p.157
Steel, primarily cold-rolled sheets and auto industry take, 4/30, p.59

Inventory Control:
Aircraft firm uses computers for scheduling, inventory, parts requirement, 3/5, p.102

Investment Casting:
Investment casters bid for new role (auto gas turbines, etc.), 2/20, p.122
Investment casting stainless impellers, ENG, 1/23, p.69

Investment Casting Institute:
New material specifications, ENG, 5/21, p.109

Iron Ore:
1956 forecast (lake and import shipment chart), 3/12, p.85
1956 forecast-shipments, 5/14, p.62
1960 outlook, iron ore sources, 4/30, p.103
Annual consumption, 1/2, p.190
Cleveland-Cliffs '56 prices, 1/2, p.491
Hilton, Ont., Bristol mines, 4/30, p.60; 6/11, p.70
J&L ore claim, Quebec, 2/27, p.71
Newfoundland deposit, Canadian Javelin contracts, 5/21, p.64
Quebec developments, 4/30, p.54

J

Japan:
Expansion plans, 3/12, p.95
Metalworking investments, Brazil, 3/26, p.97

Jasper:
Jasper ore project, Marquette, Mich: Inland and Cleveland Cliffs, 2/20, p.68; other firms joining, 3/5, p.46

Jet Engines:
Jets go civilian (airlines purchasing) chart, 3/19, p.49
See Air Frames
See Fabrication & Assembly

Jigs, Fixtures:
Work fixtures on boring mill permanently mounted, machine lathe bed castings, 4/2, p.115

K

Kitchen Cabinets:
Sales, industry report, 2/20, p.76

L

Labor:
Absenteeism report, 2/27, p.63
AFL-CIO executive council to meet (harmony-discord), 2/20, p.59
Engineers reject AFL-CIO, 5/16, p.62
Fringe benefits (see Pensions)
Fringe benefits cost, Cleveland, 1/16, p.31
Fringe demand from unions, 7th paid holiday, 5/28, p.59
Labor contract negotiations, how to prepare, 5/7, p.64
Labor contracts negotiated this year, wage boost pattern, 5/14, p.68
Labor contracts: Get set for arbitration, 5/28, p.77
Labor contracts (See SUB and Wages)
Labor turnover, 1/2, p.186
Mine, mill & smelter union demands, 4/2, p.47
Missouri Court rules on coercive organizational picketing, 3/19, p.38
Professional employees unionizing, no right to withdraw, 3/19, p.37

Reuther proposes price cuts for slack selling months, 6/18, p.98
Skilled labor problems, job hopping, restlessness, 4/2, p.53
Steel braces for labor talks, 2/20, p.65; schedules for mid-June, 6/4, p.53
Steel local represented by woman, 6/18, p.98
Steel negotiations start (U. S. Steel, Bethlehem, Republic), 5/28, p.59
Steel plant shutdowns begin, 6/25, p.51
Steel strike outlook:
Odds against strike (issues), 5/14, p.67
Government hands-off policy, 5/21, p.63
Stocks large but unbalanced, 6/25, p.41
What happens to economy, 6/18, p.97
Steelworkers demands, fringe benefits, 2/6, p.69
Steelworkers demands: 35-hour workweek, 2/27, p.63 and 6/4, p.61; 7th paid holiday, 5/28, p.59; weekend premium pay, 3/5, p.77 and 5/14, p.67
Steelworkers-Reynolds agreement, job classifications, 5/21, p.64
Strike loss—'55 production, 1/9, p.29
Teamster pact legality considered by AFL-CIO, 4/30, p.53
TC&I strike, fabricators hit, 5/21, p.75
TC&I strike layoffs, 6/18, p.92
TC&I wage losses, advance vacation pay offer, 6/25, p.41
UE members pull out, 5/21, p.63
Unfair labor practices, States may curb, 6/11, p.61
Union membership (1899-'55), 1/2, p.186
Union membership drive, 2/20, p.66 and 5/14, p.61
Union targets in '56, 1/23, p.33
Westinghouse strike ends, 3/19, p.43
Westinghouse terms differ, 3/26, p.87
White collar office workers union target, salary survey, 1/23, p.33
Wildcat strikes forecast, 3/26, p.79
See Supplementary Unemployment Benefits

Labor Surplus Areas:
Auto centers designated, 6/4, p.66

Laminates:
Laminate overlays, 6/11, p.142
Tape for laminating metal, 3/5, p.115

Lead Industries Assn.:
After stockpiling ends, what action? 4/30, p.66

Leaded Plate:
New wrinkle in plate market, 3/12, p.233

Leasing:
Machinery equipment leasing lessened, 5/28, p.59

Lift Truck Portable Elevator Manufacturers:
Elects, B, 2/13, p.77

Lithium:
Defense uses, 1/30, p.33
New applications, 4/30, p.33

Lubricants, Lubrication:
Antiacid buffer for molybdenum lube, ENG, 4/9, p.111
High-temp lube, ENG, 5/21, p.109
Mist coolants, ENG, 4/30, p.91
Silicone antifoam emulsion, 3/5, p.94
Simplify your lubricant needs, six steps, 3/19, p.94
Soluble oils for cutting tools, 3/26, p.161

M

Machine Tool Industry:
1955 orders, shipments, 2/6, p.132
1956 outlook: Builders up their sights as new orders continue, 1/16, p.37
Automation, machines-handling equipment a challenge, 5/28, p.110 and p.123
Automation, machines-handling equipment built by same company, 1/9, p.63
Automation need, NMTBA report, 5/14, p.130
Automatic screw machines, 44,000 in operation, 1/23, p.82
Automatic screw machines: Consider the automatic, 6/18, p.152
Automation grabs another (crankpin grinding), 4/30, p.98
Automation, new approach, 4/16, p.103
Ceramic tools challenge carbides, 1/30, p.89
Ceramic tools challenge machines, 5/14, p.130
Defense tool plans (see ODM)
Design with man in mind, 6/18, p.148
Direct current for equipment, 6/11, p.136
Giant with a feather touch, 3/5, p.97
Giants harnessed for production, 1/9, p.72
Horsepowers discussed, 1/9, p.63
Hydraulic leaks, solution, 6/11, p.136
IRS reg. on depreciation, 6/4, p.66
Machine tool shipments, 1st quarter, 5/14, p.130
Metalcutting machine tool sales, 1/9, p.63
Navy to replace tools, 4/2, p.47
NMTBA meeting, Houston, government program report, 4/9, p.68
Replacement selling, checkpoints for salesman, 4/2, p.101
Russia's machine progress, 2/20, p.125
Used tools, sales trend, 1/23, p.50
Westinghouse Electrification Forum, 4/30, p.106
What plastics can do for machine tools (Gisholt panel housings), 1/30, p.102

Machine Tools & Attachments:
Broach for automotive lever arms, 5/21, p.130
Broach for cam sprags, 5/14, p.130
Crankpin grinding machines for V-8 engines automatic, 4/30, p.98
Drill, dial control, 4/23, p.138
English (chucking machine) brought to U. S., 3/19, p.100
Floor-type boring mill-work fixtures mounted, machine turret lathe bed castings, 4/2, p.115
Milling machine-giant: GE and Ingersoll, 3/5, p.97
Multicutters, 3/5, p.114
Planetary shaver for gears, 4/9, p.118
Rapid pullout attach., ENG, 6/25, p.79
Reamer, lightweight, 2/20, p.146
Screw machines-automatic, 1/23, p.82
Screw machines: Consider the automatic, 6/18, p.152
Spline rollers at Buick, 2/6, p.132
Standard boring machine made automatic, 5/28, p.123
Tailored tools meet schedules, 4/9, p.132
Tilting fixture speeds broaching, 1/30, p.101
Transfer machine for valve bodies, 3/26, p.143
Turret drill press (Howe & Fant), 4/16, p.103
Twin crank dieing machine (Henry & Wright), 6/25, p.92

Machinery:
Color is safety factor, 3/19, p.116
Design with man in mind (GM), 6/18, p.148
Industry report, shipments, 5/21, p.71
Machinery erectors, industry report, 6/11, p.71
Machinery erection checked by micro-alignment telescope, 3/19, p.122
Paper mill machinery, industry report, 6/25, p.58
Plastic machinery market, 1/16, p.32

Machinery & Allied Products Institute:
Machinery cost reduced, 4/30, p.84
Manufacturing profits analyses, postwar and predepression periods, 3/12, p.89
Elects, B, 6/25, p.76

Machining:
Automatic crankpin grinding, V-8 engine crankshafts, 4/30, p.98
Automotive lever arms broached automatically, 5/21, p.130
Beryllium copper, 1/23, p.81
Buick axle housings, line forms and welds, 2/13, p.97
Chamfering cast alloy valve seats faster with square blanks, 5/14, p.136
Coined flange for radar tubes, 4/23, p.137
Comparator specimens assure good finishes, 2/20, p.112
Forum on technical progress, YC, 1/2, p.306
Honing, from rough to finish, 4/2, p.102
Honing (liquid) smooths the way, 1/9, p.71
Honing tackles a misconception, 4/23, p.116
Jettisonable fuel tank: Tooling turns the trick, 1/16, p.88
Machining comparison chart for aluminum bar stock, 3/26, p.140
Mechanical tubing, sells itself to machinists, 6/4, p.103
Multicutters, bore-chamfer-face in one operation, 3/5, p.114
Numerical control predicted, 3/26, p.154
Shaving process keeps gears in mesh, 4/9, p.118
Surface finish control, 3/26, p.158
Surface finish control, comparator specimens, 2/20, p.112
Turret lathe bed castings, work fixtures mounted on boring mill, 4/2, p.115
Ultrasonic machining, abrasive cutting, 6/11, p.132
Valve bodies on transfer machine, 3/26, p.143
Wind tunnel nozzles for Air Force, 5/7, p.114

Magnesium:
Magnesium tooling plate sales, 6/18, p.229
Market expands with hot chamber diecasting, 1/16, p.41
Magnesium truck boxes, lighter, 3/5, p.118

Magnesium Assn.:
Elects, B, 6/18, p.133

Magnetic Particles:
Magnetic particle inspection: Where should you draw the line? 1/23, p.74

Magnets:
Ceramic magnets, qualities to expect, ENG, 3/19, p.93
Permanent magnet material, ENG, 6/25, p.79
Plastic bindings, ENG, 1/23, p.69

Maintenance:
Automation maintenance show, 1/30, p.45
The "how" of steel plant maintenance, 3/12, p.168

Management:
1956: What metalworking management expects, 1/2, p.105
Communications, publications costs, 1/23, p.34
Design consultant (Visioneering) handles product development, 4/23, p.71
Eastern Brass president meets customers at luncheons, 6/4, p.71
Employee and community relations program (Inco), 2/20, p.76
Executive pay, 6/11, p.79
Executives, where they come from (Frye Asso. study), 4/16, p.45
Labor contract arbitration, get set for, 5/28, p.77
Labor negotiations, how to prepare, 5/7, p.65
Management at Work:
AC Spark Plug: J. A. Anderson, 6/11, p.77
AMF: R. C. Gott, 4/9, p.75
Atlantic Steel: J. H. Girdler, 1/16, p.47
Bay State Abrasive: E. L. Auker, 4/23, p.75
Champion Rivet: Dave Champion, 2/20, p.75
Clark Controller: E. R. Jung, 6/18, p.107
Clark Equipment: W. E. Schirmer, 4/30, p.69
Crucible Steel: Dr. Maurice J. Day, 2/13, p.51
Ford Motor: G. W. Walker, 3/5, p.61
Inland Steel: W. H. Lowe, 5/7, p.63
International Harvester: Torgensen, 6/25, p.57
Kaiser Aluminum & Chemical: R. E. Perry, 2/27, p.79
Lincoln Electric: F. K. Griesinger, 3/12, p.93
McKay Machine: A. Jay Wardle Jr., 3/26, p.95
Motch & Merryweather: C. R. Kubik, 2/6, p.85
Motorola: Hans Schiff, 5/21, p.79
Norton Co.: R. D. Lawson, 1/30, p.49
Reed Roller Bit: Jack Grundy, 5/14, p.77
Rheem Mfg.: A. W. Virtanen, 3/19, p.53
Russell, Burdsall: J. S. Davey, 1/23, p.49
Servel: John Morrill, 4/16, p.61
Southwest Steel: L. H. Krieger, 6/4, p.69
Square D: James S. Vaughn, 1/9, p.37
Superior Steel: Nicholas Kowall, 5/28, p.75
Management Series:
Ideas for industry (brainstorming), 4/23, p.105
It's time to grow, 2/13, p.81
Know your costs, 3/19, p.83
Metalworking goes to market, better communication needed, 5/14, p.107
Metalworking's new horizons, 6/18, p.137
Retirement (see)
Office engineering use: Save money, time, 4/9, p.76
Sales formula: Check list for your salesman's calls, 4/2, p.56
Shop rules help curb (listed) practices, 5/28, p.76
Skilled labor problem, 4/2, p.53
Top jobs go begging (management shortage), 5/14, p.69

Manpower: See ODM

Manufacturing Chemists' Assn.:
Spending on new chemical construction, 2/6, p.69

Manufacturing Processes:
See Production Processes

Manufacturing Profits:
MAPI analyzes postwar and predepression profits, 3/12, p.89

Marking, Stamping:
Ryerson steel color coding, 5/21, p.75

Materials & Components:
Auto designers demand more light metals, 1/16, p.82
Supersonic materials: Taming supersonic heat, 4/9, p.112
Technical progress forum, YC, 1/2, p.195
See Honeycomb
See Metals

Material Handling:
1956 sales forecast, electric-gas trucks, 2/13, p.52
A lift for the loading dock (overhead conveyor), 1/30, p.87
Automation: Spotting the trend (plants), 5/28, p.110 and a challenge, 5/28, p.123
Bulk handling in steelmaking, 5/28, p.114
Case for hand-power handling, 1/16, p.73
Conveyor sales, 4/9, p.67
Cooling conveyor rolls down costs (steel drums), 4/23, p.122
Conveyor finishing line: Fire door closing system, 2/6, p.124
Crane, hoist and monorails, industry report, 3/19, p.48
Doubled production rides on cables: Electric Motor Div. conveyor system, 3/5, p.120
Fork truck future predicted, 4/9, p.77
Ingot handling at Alcoa, semigantry crane, tongs, 1/16, p.85
Integrated handling: What it means to you, 5/28, p.106
LP-gas trucks, 2/20, p.126
More movement, less investment, more profit: Alloy bars and tubes in steel mill, 5/7, p.102
Pictures show handling ideas, 6/4, p.122; 5/28, p.110
Scrap conveyors clear the aisles (Fisher Body) disposal system, 6/25, p.84
Scrap gets heave ho: Chevrolet pushbutton conveyor system, 3/5, p.98
Tin plate handling, lithography plant, 3/19, p.118
Tote boxes for lift trucks, rivet handling, 4/9, p.130
Warehouse handling: Tape directs the conveyor, 5/28, p.126

Code: B—*Briefs;* ENG—*Engineering and Production News;* IE—*Industrial Equipment;* YC—*Yearbook Comment*

Material Handling Equipment: Conveyors:
Conveyor for hot dust (smelter), 4/30, p.109
Cooling conveyors for steel drums, 4/23, p.122
Overhead conveyor delivers to loading dock, 1/30, p.87
Overhead cable conveyors at Electric Motor Div., A. O. Smith Co., 3/5, p.130
Scrap conveyors clear the aisles (Fisher Body stamping plant), 6/25, p.84
Scrap pushbutton conveyor, Chevrolet plant, 3/5, p.98
Warehouse handling, tape-directed conveyor, 5/28, p.126

Cranes, Hoists:
Overhead semigantry crane, roller conveyors handle ingots, Alcoa, 1/16, p.85

Hoppers:
Self-dump hoppers handle metal scrap, 5/21, p.138

Storage Racks:
Stored cartons on gravity-feed racks speed order filling of socket screws, 3/19, p.121

Trucks, attachments for:
Lift-size tote boxes, 4/9, p.130

Trucks, hand power:
Case for hand-power handling, 1/16, p.73

Trucks, Gas & Electric:
Straddle carriers move bars and tubes in steel mill, 5/7, p.102

Material Handling Institute Inc.:
Bookings up, 4/30, p.59
Cleveland show: Forecasts, 6/11, p.73
What integrated handling means: G. G. Raymond Jr., 5/28, p.107

Material Handling Show:
Program, exhibitors, 5/28, p.168

Melting:
Eastern Stainless process eliminates stringers, 4/16, p.57
Economies in making stainless: Oxygen input rate makes cheaper melting practice, 3-19, p.102
Nose-tilting furnace melts Kirksite dies, (aircraft maker), 6/18, p.178
Vacuum melting: The inside story (gas sampling), 5/7, p:100
Vacuum melting facilities, 6/11, p.145

Mergers:
1955 mergers in manufacturing and mining, 6/25, p.42
Mullins Mfg., American Radiator, 2/27, p.97
Pressed Metals, Bantam, 2/27, p.100
White Motor Co. philosophy, 1/9, p.41
See Government

Metal Cleaning & Finishing:
Gyrofinishing: GM technical center, 5/14, p.152

Metal Fatigue:
Beryllium-copper fights fatigue, 5/14, p.151
What you . . . can do about metal fatigue 1/16, p.68

Metal Lath Manufacturers Assn.:
Elects, B, 2/27, p.105

Metal Powder: See Powder Metallurgy

Metal Powder Assn.:
Elects, B, 4/23, p.101
ing: New roles for powdered etals, 4/16, p.97

...etal Reels:
Industry sales report, 4/30, p.71

Metal Spinning:
Industry report, 1/30, p.50

Metallizing:
Metallizing (process) takes hold, 4/23, p.70

Metallurgy:
Beryllium-copper fights fatigue, 5/14, p.151
Design for heat transfer (built-in-tubes, uses for roll-bond metals), 5/14, p.123
How metallography helps sintering, 5/21, p.110
Metal fatigue, what you can do about it, 1/16, p.68
Nondestructive tests for metal save on production line, 5/21, p.124
Supersonic materials: Taming supersonic heat, 4/9, p.112

Metals:
Autos go heavy on light metals (alum. and magnesium), 1/16, p.82
Clad metals, advantages in savings, etc., 1/23, p.44
Columbium-tantalum, 4/2, p.54; 4/16, p.141
Expanded strategic metals, rare earth facilities, 3/19, p.71
Gallium, sealant aids vacuum, ENG, 4/23, p.115
Lithium, defense use, 1/30, p.33
Lithium, new applications, 4/30, p.33
Metal fibers formed into sheets, ENG, 1/30, p.83
Rhenium forecast, ENG, 4/30, p.91
Rhenium, high temp strength, ENG, 3/19, p.93
Roll bond metals: Design for heat transfer, 5/14, p.122
See consumption

Mexico:
Sintering plant, B, 2/13, p.76
Steel plant, French financing, 2/27, p.64

Metalworking:
1956 Facts and Figures, 1/2, p.145
1956 outlook: What management expects, 1/2, p.105
1956-Midyear report, 6/25, p.47
Annual sales totals, 1/2, p.187
Canada's growth, 4/16, p.56
Credit: Accounts receivable, 2/13, p.43
Distribution communication: Metalworking goes to market, 5/14, p.107
Earnings selected companies, 1st half outlook, 2/13, p.41
Earnings selected companies, 1st quarter, 4/30, p.62
Expansioneering, how to plan your growth, 1/2, p.101
Exports (see Foreign Trade)
It's time to grow (industry sales) management series, 2/13, p.81
Manufacturers' sales, 1/2, p.148
Metalworking's new horizons (management series), 6/18, p.137
Silicones in metalworking, uses, 3/5, p.92
Metalworking profits '56, 1/9, p.22
Texas coast, booming area, numbers of plants, 4/23, p.70
U. S. metalworking exports to Canada (chart), 4/23, p.67

Mines:
Coal mining mechanization, 2/6, p.75
Colombian mines, U. S. management aid sought, 5/7, p.59
Copper expansion coming (new mines), 1/9, p.32
Copper ore from Haiti, 5/7, p.59
Jasper ore project, Michigan, 2/20, p.68
Mining expands with steel, 6/4, p.65

Missiles:
Metalworking frontier (management series), 6/18, p.138
See Guided Missiles

Mobilization: See ODM

Molybdenum:
Combines moly-titanium, ENG, 4/16, p.91
Moly faces bright future, markets, new uses, 4/9, p.175

Motors & Generators:
General Electric new dc line, 2/13, p.45

N

NACA Lewis Flight Propulsion Laboratory:
Supersonic wind tunnel, 6/4, p.63

National Association of Architectural Metal Manufacturers:
Elects, 5/28, p.102

National Association of Corrosion Engineers:
Meeting report, 4/9, p.69

National Association of Credit Men:
Metalworking credit A-2, 2/13, p.43

National Association of Manufacturers:
Elects, B, 1/23, p.67

National Association of Purchasing Agents:
Meeting; Economic forecast by Republic, GE speakers, 5/28, p.68

National Association of Sheet Metal Distributors:
Meeting report, 5/28, p.68

National Bureau of Standards:
Oxygen role in iron-enamel bonds, survey, 3/5, p.106

National Constructors Assn.:
Elects, B, 2/13, p.77

National Electrical Manufacturers Assn.:
Federal standards report, procurement waste through duplication, 4/2, p.57

National Federation of Independent Scrap Yard Dealers:
Elects, B, 5/28, p.102

National Fluid Power Assn.:
Elects, B, 6/25, p.76

National Industrial Conference Board:
Atomic power use problems, costs watched, 5/28, p.77
GNP: Looking ahead 40 years, 6/11, p.68
Pension pay plus social security, 3/12, p.88

National Machine Tool Builders' Assn.:
1955 report, new orders, 2/6, p.132
1st quarter shipments, 5/14, p.130
Elects, B, 1/23, p.67
Houston meeting: G. E. Marx reports tool program, short war, 4/9, p.68

National Metal Trades Assn.:
Elects, B, 5/14, p.100

National Screw Machine Products Assn.:
Elects, B, 4/23, p.98
Job shop screw products, sales report, 4/2, p.65

National Tool & Die Manufacturers Assn.:
Tool and die shipments, 1/16, p.49

Navy:
Atomic propulsion of combat ships, objective, 4/2, p.48
Bureau of Ships: Comparator specimens assure good finishes, 2/20, p.112
Shipbuilding program o.k.'d, 2/13, p.48
West Coast program for flood area plants, 1/30, p.51

New Plant & Equipment: See Capital Expenditures

New York Society of Security Analysts:
Alcoa's Wilson addresses meeting, 5/21, p.164

New York Tool & Die Institute:
Elects, moves headquarters, 1/16, p.65

Nickel:
Expansion projects, metal available to U. S., 5/14, p.61
More nickel on the way: World production, Inco forecast, 5/21, p.80
Nicaro expansion, 1/23, p.104
World production, U. S. projects in Cuba, Nicaro, 5/21, p.80

Nomographs:
Nomograph for grinding costs, 2/6, p.118

Nonferrous:
1955 record profits, 3/19, p.144
Nonferrous dealer problems as scrap demand rises, 3/26, p.89

Numerical Controls: See Machining

Nylon:
Nylon tubes take shake, 4/2 p.99

O

Office of Defense Mobilization:
Allotments, steel-copper-aluminum for "A" products, 4/30, p.33
Allotments "A" products, military metals, 4/30, p.63
Executive reserves (see Government-WOCs)
Fast writeoffs (see Amortization)
Industrial dispersal guide, 1/23, p.46
Machine tool policy, put reserve tools to work, 1/16, p.39
Machine tool trigger contracts, plan gets set, 1/23, p.39; contracts revised, 2/27, p.64; plan is ready, 3/26, p.89
Machine tool procurement hit by Senate committee, 2/20, p.71; technical progress urged, 6/18, p.103
Mobilization priorities for metals, 1/23, p.46
Nickel alloy control sighted, 5/21, p.64 and 6/11, p.61
Planned Mobilization Producers, meetings held, 1/9, p.34
Skilled workers, reserve military duty, 1/30, p.46
Tungsten purchasing extended, 3/19, p.50
Turbine tool program set, 5/28, p.72; 6/25, p.54
Watch industry surveyed, 4/16, p.58; made test case, 5/28, p.72

Office Systems:
Electronic data processing, fewer clerks, 3/5, p.55
Use office engineering: Save money, time, 4/9, p.76
See Orders-Invoicing

Ohio:
Akron-Canton, new plant outlook, 1/23, p.33
Northeastern Ohio expands, 6/11, p.67
Teamwork along the Ohio, coordinates mill towns, 6/18, p.108

Oil-Gas Industry:
Oil country goods boom, 2/27, p.167
Oil firms expenditures, 5/28, p.70
Pipelines, gas-petroleum industry, 2/20, p.177
Scorpion, mobile offshore oil drilling platform, 3/26, p.86

Openhearths:
Armco-preparing scrap for the openhearth, 6/18, p.156
J&L oxygen sampler system guards open-hearth efficiency, 2/20, p.116
U. S. Steel facilities, 3/19, p.46
Weirton Steel contract, 1/9, p.54

Orders, Invoicing:
Computer aids aircraft firm 3/5, p.102
Duplicator speeds invoicing (Sherwood Brass Wks.), 5/7, p.112
Order processing, distribution communication, 5/14, p.110
Speed-up in order filling (Holo-Krome screw cartons stored on gravity-feed racks), 3/19, p.121

Ores:
Copper ore, Haiti, 5/7, p.59
Copper ore mines, 1/9, p.32
Jasper ore, Michigan project, 2/20, p.68

Outboard Motors:
Industry report, 6/25, p.52

Oxygen:
Role in iron-enamel bonds, 3/5, p.106
See Steelmaking

P

Packaging, Containers:
Container industry drowth, 4/30, p.54
Defense contract packagers, 2/20, p.67
Steel shipping containers output, 2/6, p.81
Valve packaging, Thompson Products, 5/7, p.48
Wire coils: All-in-one shipping carrier and feeding reel, 1/9, p.62
Wirebound shipping containers, industry report, 4/9, p.69

Panels:
Honeycomb (see Air Frames)
Metal curtains (see Construction)

Paper Machinery:
Industry report, 6/25, p.58

Parking Garages:
More parking garages, structural steel, 6/18, p.102

Patents:
AT&T, IBM patents at SBDA, 4/30, p.54
Bill designed to speed processing, 5/7, p.47
Overhaul of patent and trademark laws recommended, 1/23, p.46

Pensions, Insurance:
Auto workers drawing retirement pensions, 5/28, p.77
Fringe benefit costs, Cleveland, 1/16, p.31
Maximum weekly benefits, U. S. workers, 1/16, p.31
Survey of 120 pension plans-retirement pay, 3/12, p.88
Steel workers pension issue, 4/30, p.53; 5/21, p.63
U. S. Steel agrees to designation of a co-pensioner, 3/19, p.46
See Supplementary Unemployment Benefits

Pickling:
Spray pickling brass strip (Scovill Mfg.), 4/9, p.134

Piggyback: See Freight Cars

Pipe, Tubing, Fittings:
Flareless fittings for jets: Tighter fits for fittings, 5/7, p.111
Mechanical tubing, uses, 4/23, p.177
Nickel plate pipe, 1/30, p. 98
Nylon tubes take shake (vibrating parts connect easily with flexible tubing), 4/2, p.99
Pipe distributors' sales program (Republic), 5/7, p.58
Pipe pricing, jobbers' protest, 1/16, p.119
Pipe welding faster with consumable insert ring, 5/14, p.144
Piping systems (PVC) stems acid corrosion, 3/5, p.123
Plastic pipe, industry report, 5/21, p.72
Pressure pipe castings, industry report, 3/12, p.86
Pressure tubing, industry report, 5/21, p.175
Seamless tubing rough honed, 4/2, p.102
Tube bending nylon mandrel, ENG, 5/21, p.109
Tube-In-Strip, Revere Copper product, 1/23, p.76
Tubing sells itself to machinists, 6/4, p.103
Steel tubing production line efficiency, 6/18, p.169

Pipelines:
Coal pipelines, Cadiz to Cleveland, ENG, 2/27, p.109
Coal transportation experiment: Pittsburgh Consolidation and CEI, 4/23, p.60
Pipelines put pinch on plate, gas and petroleum companies, 2/20, p.177
Pipelines scheduled; oil line veto (Gulf to Ohio-Pittsburgh), 5/7, p.48
Steel pipe, fuel lines, 4/9, p.66

Pipe Mills:
Canadian mill, joint project, 2/6, p.81

Pistons:
Lighter hydraulic pistons in aircraft landing gear (impact plastics molded over aluminum), 3/5, p.111

Plant Closures:
Case Co., Philco, 4/23, p.59

Plant Dispersal:
ODM's dispersal guide, 1/23, p.46

Plant Expansions:
Airco industrial gas-producing plants, 1/23, p.66
Alcoa alumina plant, Tex., 5/7, p.81
American Brass modernization, 4/30, p.87
American Can, steel processing plants, 6/18, p.99
AS&W, welded wire fabric plant, 2/20, p.93
Bethlehem Steel, 2/6, p.79
Bethlehem-Sparrows Pt., new mill equipment, 3/26, p.113
Borg-Warner (three projects), 4/16, p.79
Carrier-West Coast plant, 5/14 p.95
Cleveland Twist Drill, Scottish plant, 9/1, p.55
Clow & Sons, 3/5, p.79
Cold Metal strip mill at L. A., 3/5, p.79
Detroit Steel's Portsmouth Wks., 3/12, p.116
Doehler-Jarvis, 4/9, p.93
GE fund, five year plan, 6/18, p.129
IBM-West Coast, 2/13, p.42; 3/5, p.80
Kaiser, Fontana mill, 5/28, p.69
Kaiser Aluminum: Moss Landing (magnesia plant); and Columbiana, O. (refractories plant), 2/13, p.69
Kaiser Alum., Chalmette plant, 4/9, p.99
Koppers Co., 1/16, p.64
Lewyt expansion programs, 1/23, p.66
Misco Precision Casting, 1/9, p.54
Norton, Santa Clara, Calif., B, 5/21, p.97
Republic Steel, 2/6, p.79
Republic's continuous carbon correction annealing unit, 5/28, p.93
Revere tube mills, 4/23, p.93
Reynolds program, 3/12, p.111

Plant Layout:
Sintering plant for Sheffield Steel, 1/16, p.76

Plant Maintenance & Engineering Show:
Steel plant maintenance questions, 3/12, p.168

Plant Sites: See Area Development

Plant Stabilization:
CF&I program, year-around output, 3/5, p.53

Plastics:
Aircraft landing gear pistons, plastic-aluminum, 3/5, p.111
Blast furnace in mothballs, plastic coating, 3/26, p.134
Faucet has protective plastic, ENG, 1/16, p.67
Industry report, U. S. production, 3/26, p.88
Industry report, '56 outlook, 2/13, p.36
Industry report, plastics go industrial, production, 6/11, p.72
Jet engine plastic compressor blades, 2/27, p.116
Laminate overlays (Dynel), 6/11, p.142
Plastic machinery market, 1/16, p.32
Plastic overcoats for metal (Whirlclad coat, German process), 2/20, p.114
Plastic pipe for drinking water, ENG, 3/5, p.91
Plastic pipe, industry report, 5/21, p.72
Plastic piping stems acid (wastes) corrosion, 3/5, p. 123
Plastic pump handles tough corrosive chemicals, 1/30, p.108
Polyester resins use grows, ENG, 1/16, p.67
Teflon, plastic insert may end lubrication in auto suspension joints, 6/11, p.146
What plastics can do for machine tools, 1/30, p.102

Plates:
Leaded plate market, 3/12, p.233
Magnesium tooling plate sales, 6/18, p.229
Plate shortages affect on weldment sales, 3/12, p.87

Plating:
Plating equipment, industry report, 2/6, p.80
See Electroplating
See Flame Plating

Plumbing Brass Institute:
Reorganized, B, 3/12, p.120

Population: See Census

Porcelain Enamel:
Abrasion tester determines surface wear, 4/30, p.120
Architectural use, 6/25, p.53
Enameling sales, industry report, 4/30, p.70
Put it on electrostatically, 4/9, p.115

Powder Metallurgy:
New rolls for powdered metals, 4/16, p.96
Process controls for powdered metals, 5/14, p.118
U. S. shipments (chart): Metal powder use grows, 4/2, p.139

Power Boats:
Industry report, 3/26, p.91

Power Plants & Generators:
Boiler demand spurts pressure tube sales, 5/21, p. 175
Direct current gets a boost (plant installations): Tiny silicon rectifiers convert ac to dc, 6/11, p.136
Electric power tax write-offs, 3/12, p. 84
Electric systems in steel industry, report, 6/25, p.79

Power Tools:
Air-operated sleeve presetter for flareless fittings, 5/7, p.111
Electric tool sales, do-it-yourself trend, 2/27, p.75
Wrench tightens nuts-bolts (Ford), 2/27, p.114

Power Transmission (Mechanical):
Clutch and torque converter sales, 4/9, p.70
Magnetic compressor clutches, 6/4, p.73
See Automotive

Prefabs:
Prefab homes forecast, 4/9, p.59

Presses:
Automated line makes auto wheel discs (England), 2/20, p.69
Buick axle housings rolled on press, 2/13, p.97
Buick transfer press: Package plant in one press, 1/30, p.90
Giants harnessed for production (Douglas), 1/9, p.73
Heavy presses forge a future (die forging), 1/9, p.74
Henry & Wright dieing machine: New press is first of a line, 6/25, p.92
Industry report (mechanical and hydraulic presses): Presses show progress, 4/16, p.63
See Air Force (heavy presses)

Pressure Pipe Castings:
Industry report, 3/12, p.86

Pressure Tubing:
Industry report, 5/21, p.175

Price Competition (See Costs)

Prices:
Bar pricing, U. S. Steel, 1/2, p.474
Comparison of price composites, YC, 1/2, p.161
Finished steel, 1955 average monthly, 1/2, p.162
Finished steel, weekly index, 1/2, p.160
French steel, 5/21, p.70
Galvanized pipe, new pricing policy, 1/16, p.119
Industrial materials, average price rise, 2/6, p.76
Iron ore, Cleveland-Cliffs '56 prices, 1/2, p.491
Nonferrous, yearly averages, 1/2, p.163
Scrap quotations force casting prices up, 1/30, p.40
Steel hike weighed, 5/21, p.69; Congressional investigation forecast, 5/21, p.76

Printed Circuits:
Beryllium copper used for contact materials, fights fatigue, 5/14, p.151

Procurement:
Army procurement officers listed for small business use, 4/16, p.58
Defense cataloging and standardization program, 2/27, p.76
Defense cataloging and standardization program, aid to government and industry (waste through duplication) 4/2, p.57
Guide to government buying, 2/27, p.73
Military buying (see ODM)

Product Communication:
Distribution communication (management series), 5/14, p.107

Product Development:
Design for profit: Visioneering Co., consultants, 4/23, p.71

Production:
Alloy steel, total ingots-castings; by processes, YC, 1/2, p.152
Alloy steel report, 2/6, p.175
Coke by steel districts, 3/5, p.162
Copper, world output, 1/23, p. 104; 2/27, p.156; 4/23, p.166
Phosphorus, 4/30, p.70
Production indexes: 1/2, p.183; 1/23, p.33; 4/2, p.47; 4/23, p.59; 6/18, p.97
Magnesium ingot-Jan., 3/12, p.222
Metal cans, 2/27, p.73
Nickel, world output, 1/16, p.108; 5/21, p.80
Pig iron, 1/30, p.143
Plastics, 3/26, p.88; 6/11, p.72
Primary aluminum (1949-55) by months, 1/2, p.166
Primary aluminum-'55, 1/23, p.104
Primary aluminum, 4/2, p.128; 4/23, p.166
Steel: ECSC vs. Soviet, 2/20, p.60
Steel ingots (tables), 1/16, p.123; 2/20, p.188; 3/19, p.162; 4/16, p.146; 4/30, p.161; 6/18, p.234
Steel ingots, U. S. Steel, 4/30, p.165
Steel-pig iron, world output, 1/2, p.150
Taconite (1955-'70), 4/30, p.61
Titanium sponge, mill products, 2/27, p.69
Trucks, 4/16, p.65
Zinc, 3/12, p.78

Production Charts:
Keep score on production, hour-by-hour graph, 6/11, p.118
Nomograph charts grinding costs, 2/6, p.118

Production Pools:
Detroit small business firms form, 3/26, p.80
West Virginia pools, 3/26, p.80

Production Processes:
Automated gear production, 1/9, p.58
Buick: Axle housing production, 2/13, p.97
Buick: Axle housing, Package plant in one press, 1/30, p.90
Carrier Corp., finned heating coils: Where stamping and assembly meet, 6/18, p.160
Computers move to production, 3/5, p.102
Dana Corp.: Tight space forces efficiency, 6/18, p.169
Douglas Aircraft: Giants harnessed for production, 1/9, p.72
GE production line: Tests that save, 5/21, p.124
Pastushin Aviation, jettisonable fuel tanks: Tooling turns the trick, 1/9, p.88
Servel Inc.: Finding a better way, 5/21, p.132
Smith Corp.: Doubled production rides on overhead cables, 3/5, p.120

Profits: See Financial

Public Relations:
Eastern Brass president holds customer luncheons, 6/4, p.71
Inco employee relations program, 2/20, p.76

Pumps:
Plastic pump handles tough corrosive chemicals, 1/30, p.108

Purchasing Agents Assn.:
Chicago elections, 6/25, p.76
Chicago buyers' questionnaire, 6/18, p.98
Chicago capital expenditures 2/20, p.59

Purdue University:
Air inspection study, ENG, 2/13, p.91

Q

Quality Control:
Beech Aircraft system: Use your customers' complaints, 2/13, p.105
Process controls for powdered metals, 5/14, p.119
Titanium forgings with a pedigree, constant check, 4/2, p.100
What specifications mean to you, 4/16, p.93

R

Radio-Electronics-Television Manufacturers Assn.:
Sales forecast, 6/18, p.91
Transistor, diode output, 3/5, p.54

Radio Engineers:
New York show, 3/26, p.80

Radio-Television:
Closed-circuit TV at Great Lakes Steel: Aid to shearing slabs, 2/20, p.119
Color TV marks radioactive areas at plutonium plant, 6/11, p.111
Color TV prices, production forecast, 2/13, p.35
Disc cathodes for narrow neck tv tubes, ENG, 3/5, p.91
Galvanizing line, TV setup, 2/27, p.118
TV receiver cabinet: Where wood and metal meet, 3/19, p.98
TV joins X-ray to inspect appliance heating elements, 4/30, p.120
TV in metalworking: Tireless TV saves dollars, 5/28, p.71
TV production, firms, 4/9, p.60

Radioisotopes:
Automakers use saves money-time, 5/25, p.61

Railroads:
ACF piggyback flat-car "Adapto", 1/23, p.42
Diesel order, Louisville & Nashville RR, 2/13, p.47
Expansion plans, 1/16, p.49
Illinois Central cars, 1/23, p.39
Lightweight trains introduced by Rock Island, 2/13, p.42
Lightweight trains aid industry, 4/16, p.55
Switchmobile, used in congested areas, 3/19, p.125
See Freight Cars, Freight Rates

Rare Earths:
Firms adding processing facilities, 3/19, p.71

Real Estate:
Government holdings, 3/19, p.55
Industrial property price, 6/25, p.42

Rectifiers:
Silicon rectifiers convert ac to dc at plant installations, 6/11, p.136

Refineries: See Smelters

Refractories:
Industry report, firms expanding, 4/16, p.54

Renegotiation: See Defense Contracts

Research:
Abrasive research pays, 4/9, p.71
Battelle reactor research lab, 3/5, p.112
Can market, research pays off, 2/27, p.73
Continental Can lab, 6/25, p.75
Coal research urged, Bureau of Mines, 5/21, p.75
Ford's scientists catch up, 5/21, p.83
GE applied research foundry lab, 1/9, p.54
GE lab for supersonic power, honeycomb dev., 2/27, p.116
GM opens technical center, 5/7, p.67
GM technical center: Climate for progress, 5/14, p.152
Industrial research in 1956, four fields, 3/26, p.149
Industrial and scientific research forecast '56, 1/9, p.22
Industrial and scientific research, Detroit pools, 4/16, p.58
NACA wind tunnel, 6/4, p.63
Republic plans lab, 5/7, p.86
Sheffield's gage lab: A spotlight on millionths, 2/27, p.124
U. S. Steel opens Monroeville research center, 5/7, p.58

Resistance Welder Manufacturers Assn.:
Sales report, 3/26/ p.90

Retirement:
New look in retirement, 6/4, p.61
Preparation for retirement program, 6/11, p.69

Rhenium: See Metals

Roads:
Fallon Bill-federal program, 3/12, p.78
Ohio expansions spurred by highway program, 6/11, p.67
Road machines hit pay dirt, 4/23, p.69
Road program ready to roll (equipment-materials demand), 4/16, p.51
Wire fabric use, 1/30, p.133

Rod Mills:
AS&W installs, 5/7, p.81
Rolls and rod mills (cooling coils), 5/14, p.118

Roll-Bond Metals:
Design for heat transfer, 5/14, p.122

Rolling Mills:
American Brass cold rolling mills: Boost for nonferrous strip, 3/5, p.108
Banding on work mills, 3 rules to cut troubles, 5/21, p.120
Bethlehem's Johnstown mill: Rolls and rod mills, 5/21, p.118
Embossing quality forged in sheet metals, 3-dimensional, 2/13, p.102
Forged rolls, Ohio Steel Foundry process, 4/23, p.124
Thomas Strip Div.: Matte finishes blasted on mill rolls, 5/14, p.128

Rope:
Fiberfrax rope hi-temp, paper, bulk and block form, 5/14, p.142

Russia:
American experts report: Russia strives to catch up on industrial processes, 3/5, p.56
Atom plans revealed, 3/26, p.97
Engineers, technical resources (editorial), 1/23, p.37
Engineers-scientists, 4/9, p.60 and 5/7, p.55
Machine tool developments, 2/20, p.125
Soviet steelmaking, 4/23, p.115
Soviets plan steel boost (chart-production-capacity), 6/4, p.64
Steel behind the Iron Curtain, 6/25, p.88

Rust Inhibitors: See Corrosion

S

St. Lawrence Seaway:
Great Lakes channel deepening authorized, 4/16, p.46
Seaway trade route set up, 2/20, p.72
Ships for Europe-Great Lakes service, 5/14, p.73

Safety:
Safety goggles, test for resin lenses, ENG, 1/16, p.67
White helmet for new workers, ENG, 4/2, p.95

Salaries:
Average factory foreman, 2/13, p.44
Executive pay rises, 6/11, p.79
Salesmen, steps for fair pay, 1/9, p.27

Sales: See Business

Salesmen:
Fair pay for salesmen, seven steps to a good sales pay plan, 1/9, p.27

Sales Profits:
Steel industry vs. industrial groups, 5/21, p.70

Sales Programs:
Industrial products (editorial), selling in '56, 1/30, p.37
Machine tool replacements pushed by salesmen, 4/2, p.101
Make sales dollars pay (salesman's checklists major accounts, etc.,) 4/2, p.56
Republic Steel: OMI directs pipe distributors' selling program, 5/7, p.58

Salt Bath Institute:
Elects, B, 3/12, p.118

Scales, Weighing:
Industrial scale sales, industry report, 2/27, p.81

Scarfing:
Mechanical scarfing: The rush is on (Irwin Such address at IAA meeting), 4/2, p.104

Scientific Apparatus:
Industry report, 1/9, p.22

Scientific Apparatus Makers Assn.:
Elects, B, 4/30, p.88

Scotland:
Cleveland Twist Drill to build, 1/9, p.55

Scrap:
Consumption by industries, 1/2, p.190
Consumption of purchased scrap (domestic), 2/20, p.59
Convention speaker, price break due, 1/9, p.33
Conveyor pushbutton system (Chevrolet), 3/5, p.98
Conveyors clear the aisles (Fisher Body), 6/25, p.84
Europe needs scrap, 4/16, p.46
Government survey seen, 6/25, p.41
New York El scrapped, 1/30, p.51
Nonferrous demand continues as scrap men probe problems, 3/26, p.89
Price too high (editorial), 1/16, p.35
Preparing scrap for the open-hearth at Armco, 6/18, p.156
See Foreign Trade

Screw Machine Products:
Industry bellwether report, 3/19, p.37
Screw parts sales, job shops: Planning for expansion, 4/2, p.65
Screw parts sales, industry report, 5/14, p.79

Screw Machines:
Consider the automatics, 6/18, p.152
Hollow aluminum bar for screw machine operations, 3/26, p.140

Sealing:
Blast furnaces in shutdown: Plastic coats, 3/26, p.134
Impregnation seals and saves porous castings, 5/14, p.133

Security Analysts:
Cleveland meeting, Kaiser spokesman, 5/14, p.68
New York meeting, Alcoa (Wilson) address, 5/21, p.164

Sheet & Strip:
Air Material Command announces preferred thicknesses, 2/13, p.143
American Brass cold rolling mills: Boost for nonferrous strip output, 3/5, p.108
Continuous brass strip pickling line, 4/9, p.134
Continuous strip paint line, rolled-on colors for awnings, aluminum siding, 4/30, p.96
Roll-bond metal sheet: Design for heat transfer, 5/14, p.122
Tubing from a strip mill, 1/23, p.76
Zinc-coated strip and sheets, continuous galvanized, 2/6, p.122

Shells:
Shell forming: Some like it hot, some like it cold, 2/27, p.128

Shipments:
Castings, 1/2, p.156
Farm equipment, 2/13, p..46
Finished steel:
1955 by type, 1/2, p.154
1955 distribution by market class, 3/19, p.154
1955 shipments, 2/20, p.192
1956 shipments, 3/19, p.165; 4/23, p.180; 5/21, p.183
Freight car, 1/2, p.179
Gas appliances, factory units, 2/20, p.70
Machine tools, producers' shipments, 1/2, p.169
Metal powder in U. S., 4/2, p.139
Machine tools, 1/16, p.38
Machinery, 5/21, p.71
Metal cans, 2/27, p.73
Molybdenum products to consumers, 4/9, p.175
Pressure pipe, 3/12, p.86
Refractory, 4/16, p.54
Steel products, 1/2, p.154; 2/20, p.192; 3/19, p.165; 4/23, p.180
Steel shipments-'55, jobbers' share, 5/14, p.72

Shipping:
Lake shipping threatened by age of vessels, 4/30, p.60
Ore boats at Soo Locks, opening week, 4/9, p.59
Shipping containers (see Packaging)
Steel shipping costs, 4/30, p.39

Ships, Shipbuilding:
Gas-turbine-Solar Meteor (Navy) 4/2, p.56
1956 building underway, 1/9, p.21
Grace Line-Maritime Bd., ship construction agreement, 1/23, p.34 and 1/30, p.46
Great Lakes shipbuilding at standstill, 4/30, p.60
Maritime shipbuilding program, 6/18, p.104
Ore carriers, Barium Steel, 6/4, p.71
Shipbuilding, commercial, Naval, 1/2, p.180; 4/23, p.77
Shipbuilding: Lloyd's Register, 2/13, p.53
Ships designed for Europe-Great Lakes, 5/14, p.73
Ship contracts, 6/4, p.71

Shop Rules:
Rules help curb infractions, 5/28, p.76

Shot & Grit Makers:
Industry report, 6/4, p.70

Shrink Fitting:
Shrink fitting gets a boost: Bearing assemblies fitted to heavy equipment at Wean Mfg., 1/30, p.88

Silicones:
Silicones in metalworking, 151 uses, 3/5, p.92
Silicon steel outlook, 4/30, p.149

Sintering:
AIME report: Sinter and sulphur, 4/30, p.100
How metallography helps sintering, 5/21, p.110
Koppers' giant sintering machines for zinc concentrates, 5/14, p.126
More sinter for the blast furnace (Weirton-Great Lakes), 5/14, p.126
Sheffield Steel at Houston (layout, benefits), 1/16, p.76
Weirton, Great Lakes contracts, 1/30, p.67
Weirton, Great Lakes plants, 5/14, p.126

Skilled Workers:
Skilled workers restless, job hopping, 4/2, p.53
Shortage (editorial): Case for the craftsman, 4/9, p.63

Small Business:
Buying guide, 2/27, p.73
Defense contract awards, 4/2, p.48
Distribution pattern complaints, 4/30, p.66
Limited loan policy, 1/23, p.44
Small business future: Prof. Wess, American University, 4/16, p.57

Small Lot Metal Stamping Institute:
Elects, B, 2/20, p.104

Smelters-Refineries:
Alcoa smelter, Evansville, Ind., 6/18, p.108
Aluminum smelters, Quebec, 5/7, p.146
Climax and Mallinckrodt plan uranium unit, 6/4, p.92
Noranda Smelter: Cottrell precipitator returns dust to sulphide roasting furnace, 4/30, p.109
Texas City tin smelter, government may close, 4/2, p.128; bill passed to keep in operation, 6/4, p.53

Smog & Smoke:
Research funds fight smog, 4/16, p.46
No smoking for Kaiser: Fume control for open-hearth stacks, 4/16, p.100
Smokescope checks chimney, ENG, 4/9, p.111

Social Security:
Survey on pension pay plus social security, 3/12, p.88

Society of Automotive Engineers:
Automation, how to plan it: Heliotrac and Tiltawhirl, mythical roles in management, 1/30, p.42
Cleveland meeting (quality stressed), 4/2, p.67
Detroit meeting (1956 outlook), 1/23, p.53
Elects, 1/30, p.78

Solar Energy:
Air Force solar-furnace research, New Mexico, 4/16, p.58
Future developments, 6/18, p.143

Solder:
Consumption by industries (chart), 1/2, p.473

South America:
Brazil-steel plant, Krupp interest, 1/23, p.34; 3/12, p.95
Columbia's IHFS coking mines seek U. S. management aid, 5/7, p.59
Export-Import loans, steel mills, 2/20, p.76
Latin American plant developments, 2/13, p.88
Steel production expands (table), 5/21, p.74
Venezuelan steel mill built by Italian firms, 1/16, p.41
Venezuelan trade list, Commerce booklet, 5/7, p.59

Spaceheaters: See Heating

Specifications:
What specifications mean to you, 4/16, p.93

Spinning:
Metal spinning industry report, 1/30, p.50

Stainless Steel:
Atomic uses, 5/28, p.60
Eastern Stainless Steel melting process to eliminate stringers, induction furnaces, 4/16, p.57
Build corrosion resistance into stainless, 4/9, p.116
Economies in making stainless, high oxygen imput rate, 3/19, p.106
Economize with stainless, uses, 4/30 p.117
Foundry uses stainless thread inserts, 4/9, p.128
New vistas for stainless: Budd president states 201 interchangeable with 301, 4/30, p.93
Welding 200 series, ENG, 6/18, p.147
The finish that fits (seven mill finishes), 2/13, p.92

Stampings:
Industry report, 3/26, p.96
Where stamping and assembly meet: Carrier production system for finned heating coils, 6/18, p.160

Standards:
ASA standards approval, 3/12, p.88
Air Force sheet, strip thickness standards, 2/13, p.143
Defense dept.'s cataloging and standardization programs, 2/27, p.76 and 4/2, p.57

Steel Door Institute:
Chairman elected, B, 1/23, p.67

Steel Drums:
Industry report, light-heavy drums, 3/5, p.57

Steel Founders' Society:
Casting research foundation, 4/23, p.115
Elects, B, 4/23, p.98
Ritter appointment, B, 4/2, p.92
Shell mold process for low carbon steel, 3/19, p.97

Steel Industry:
Alloy steel producers report, 2/6, p.175
Earnings (see Financial)
Financial analysis (insert), 4/2, p.92
Highways, annual outlays, 4/16, p.52
More steel for Europe (chart), 3/12, p.95
Plastic coated, porcelain enameled steel, experiment, 5/14, p.62
Product mix changes (J&L), 6/25, p.129
Sales profits-per cent: Steel vs industrial groups, 5/21, p.70
Steel and iron required for modern-day products; also for metal can, 1/2, p.158
Steel wire in hair-bobby pin, 2/6, p.70
Steel operating rate forecast, 5/28, p.68
See Capacity
See Expansion
See Prices
See Production
See Shipments
See Wages

Steelmaking:
Blast furnace in moth balls (plastic coat), 3/26, p.134
Blast furnace moving: Up capacity in less down time at Granite City Steel, 2/13, p.100
Blast furnace moving day at Granite City Steel, 6/4, p.110
Bulk handling report, 5/28, p.114
Carbide brings the sulphur down, new desulpherizing process, 3/5, p.100
Carbon in steel analyzed, 3/19, p.114
Dornin process, steel ingots, 6/18, p.158
Electric furnacemen talk shop, 1/9, p.64
Electric steelmaking, 1906-1956, 4/9, p.123
Electric furnaces move ahead (growth 1935-55), 4/9, p.120
Galvanizing line: Steel Co. of Canada, 2/27, p.118
Hot cropping for top ingot yield, 1/30, p.92
Maintenance planning in steel mills, 3/12, p.168
Mechanical scarfing: The rush is on, 4/2, p.104
Oxygen conversion, J&L license, 3/19, p.38
Oxygen enriches the blast, Weirton, 6/11, p.120
Oxygen imput rate, cheaper economy in stainless, 3/19, p.102
Oxygen sampler guards open-hearth efficiency, 2/20, p.116
Rollmaking forges ahead: Ohio Steel Foundry, 4/23, p.124
Rolls and rod mills (Bethlehem's Johnstown mill), 5/21, p.118
Russian steelmaking, 6/25, p.88
Scale-free heating of steel billets in a direct-fired furnace, 3/5, p.105
Scale problem whipped, 6/25, p.86
Scrap preparation for the open-hearth, 6/18, p.156
Sinter and sulphur: AIME report, 4/30, p.100
Sintering plant for Sheffield Steel, layout, 1/16, p.76
Sintering plants for Weirton and Great Lakes: More sinter for the blast furnace, 5/14, p.126
Sintering savings, coke rate per ton of pig iron, 1/16, p.79
Smoke control, Kaiser open-hearth stacks, 4/16, p.100
Stainless steelmaking economies, higher oxygen input rate, 3/19, p.102
Vacuum melting facilities, 6/11, p.145
Wire mill equipment (CF&I): Five ways to stretch wire production, 2/6, p.126
Wire rope flaw detector, AS&W, 1/23, p.78

Steel Mill Equipment:
Copper aids equipment orders, 6/4, p.54
Order backlogs forecast, 5/14, p.61

Steel Mills:
AS&W rod mill, 5/7, p.81
American Brass cold roll mills: Boost for nonferrous strip output, 3/5, p.108
Argentina integrated steel mill financed, 3/5, p.46
Bethlehem, Johnstown mill, 5/21, p.118
Brazil, Krupp interests, 3/12, p.95 and 1/23, p.34
Cold Metal strip mill, L. A., 3/5, p.79
German continuous mill: U. S. agreement (Armco licensing, Continental Foundry equipment), 2/13, p.53
Mexican plant, 2/27, p.64
Roanoke, Va., plant proposed, 1/30, p.34
Roanoke survey, Norfolk & Western R. R., 4/30, p.34
Sendzimir mill at Eastern Stainless, 1/30, p.67
Sendzimir reversing cluster mill at Crucible, 1/23, p.43
Sendzimir reversing cluster mill for titanium sheet, ENG, 1/23, p.69
South America expansion, 5/21, p.74
Southern Electric, 3/5, p.63
South America: Mills get loans, 2/20, p.76
Strip mill modernizes (Riverside Metal), 4/30, p.64
Venezuelan mill built by Italian firms, 1/16, p.41
Western Empire Steel, West Coast, 6/4, p.63

Steel Plate: See Plates

Steel Products:
See Finished Steel
See Shipments

Steel Shipping Container Institute Inc.:
Steel shipping container production, 2/6, p.81

Steel Window Institute:
Elects, B, 3/19, p.78

Stockpiles:
Government stocks, zinc-nickel, 4/16, p.130
Tungsten purchase urged by Wormser, 6/4, p.54

Stock Purchase:
Chrysler employee plan voted, 3/26, p.80
Employees become owners, 2/6, p.87
Employee purchase plans, AIC survey, 2/13, p.36
Steel share-owners hit peak, 6/4, p.70
Supreme Court ruling upheld (employee stock purchase subject to collective bargaining), 4/30, p.53

Storage:
Movement and storage of alloy bars and tubes in a steel mill, 5/7, p.102

Strategic Materials:
Senators hit Free World shipments to Iron Curtain, 4/2, p.48

Strikes: See Labor

Strip Mills: See Steel Mills

Structural Fasteners:
Four to choose from (chart), 5/21, p.112

Structural Steel:
1955-'54: Orders placed, shipments by months, 1/2, p.192
Canadian builders pay gray market prices, 3/19, p.55
More structurals coming, expansion at three mills, 6/4, p.157
Parking garage use, 6/18, p.102
Steel strands support TWA hangar roof, 5/21, p.120
Studs used as shear connectors for buildings, bridges, 2/6, p.81

Supersonic:
GE superlab: Honeycomb development for jet engines, 2/27, p.116
Machining wind tunnel nozzles for Air Force, 5/7, p.114
NACA supersonic wind tunnel, 6/4, p.63
Taming supersonic heat (lab equipment), 4/9, p.112
Titanium takes away the heat (Sikorsky assault transport helicopter), 1/30, p.106

Supplementary Unemployment Benefits:
Auto makers sell SUP to workers, questions asked, 5/28, p.59
European Community program, 6/11, p.70
Get set for SUB, (how to cope with union demands; features of major plans), 3/5, p.51
How plans measure up (Tailor it to fit), 3/19, p.44
Industry coverage, forecast by Slichter (Harvard), 3/12, p.77
Internal Revenue classification, 4/16, p.58
NICB surveys labor leaders, 4/23, p.60
Plant payments begin, 5/21, p.63
SUB has labor pains, Reuther comments, 6/4, p.59
State-federal average unemployment payments, 2/20, p.66
States approving SUB, 3/5, p.45; 5/21, p.63

Surface Treatment:
Barrel finishing "Supersheen", 5/7, p.114
Black finish with a bright future, 2/23, p.72
Chromium plating rocket motors, 1/16, p.75
Color treatment (see Color)
Comparator specimens assure good finishes, 2/20, p.112
Electrotinning tightens wire coating control, 1/16, p.90
Electrostatic spray painting, 3/26, p.149
Gyrofinishing, new GM process (abrasive polishing trim before electroplating), 5/14, p.152
Liquid honing smooths the way: Liquid abrasive blasting improves machined surfaces, 1/9, p.71
Plastic coats for blast furnaces, 3/26, p.134
Plastic overcoats for metal, 2/20, p.115
Silicones in metalworking, 3/5, p.92
Superfinishing checked with gage blocks, 6/25, p.94
The finish that fits (stainless mill finishes), 2/13, p.93

Surveys:
AIC: Foremen salaries, 2/13, p.44
AIC: Fringe benefits cost to Cleveland mfg.s, 1/16, p.31
Business prospects, 2nd half, 6/4, p.53
Executives, where they come from, 4/16, p.45
Industrial components, 1/9, p.39; 4/2, p.63
MAPI analyzes postwar and pre-depression manufacturing profits, 3/12, p.89
Metalworking midyear report, 6/25, p.47
Pension pay plus social security, NICB check, 3/12, p.88
RCA: Jobs engineers could delegate to technicians, 5/7, p.53
Steel, copper, aluminum, quarterly survey, 2/6, p.86; 5/7, p.157
Trucks-trailers, Western Reserve University study, 2/13, p.47
Vacation trends, 5/21, p.73
Value Line Investment survey, car production, 319, p.37; 5/7, p.47
Wage increases, NAI survey, 4/16, p.45

T

Taconite:
Taconite output, affect on blast furnace production, 4/30, p.61

Tantanium:
Supply plentiful, 4/2, p.54; 4/16, p.141

Tape:
Mylar tape for laminating metal, 3/5, p.115
Tape aids metalworking, 1/16, p.42
See Electronics

Tax Writeoffs: See Amortization

Taxes:
1957 tax cut, forecast, 2/13, p.36
Corporate graduated tax studied by Congress, small business relief, 3/5, p.58
Corporate income tax to control corporation-size, 1/30, p.34
Corporate tax, political parties agree, 2/20, p.60
IRS depreciation rules, 6/4, p.66
Personal income cut, forecast, 1/23, p.34
State revenues up in '56, 1/16, p.31
Tax cut outlook, 4/30, p.66

Taximeters:
Cast of beryllium copper, 1/23, p.81

Technicians:
Jobs engineers could delegate to technicians, 5/7, p.53

Television: See Radio, Television

Temperature Controls: See Heat Treating

Texas:
Texas gulf coast, booming area, 4/23, p.70

Textile Mills:
Modernizes, new machinery, 5/21, p.71

Thread Inserts:
Cast-in thread inserts anchor costs, 4/9, p.128

Time Study:
Rockwell Mfg. system: How to teach time study, 3/19, p.47

Tin Cans:
Margin plating process reduces tin in cans, 5/28, p.69
Research opens can market, 2/27, p.73
Soldered cans, 1/2, p.473

Tin Plate:
Lithography plant solves tin plate handling, 3/19, p.118

Tires:
Blowout-proof, 6/18, p.111
Goodyear plans 14-in. tire, 1/9, p.39
Steel cord tires, wire-protected, 2/6, p.79

Titanium:
Air Force handbook, 3/5, p.122
Civilian uses, forecast by Du Pont metallurgist, 4/2, p.55
How to draw titanium, 5/7, p.98
More heat treatable titanium (Ti-140A, Ti 155A), 4/23, p.118
Ti-140A, heat treatable, ENG, 4/2, p.95
Titanium forgings with a pedigree, control from sponge through fabrication, 4/2, p.100
Titanium gets second wind: Mill product producers, capacity, production (chart), 2/27, p.69
Titanium improves aluminum sand castings, 2/20, p.130
Titanium replaces 431 stainless in bomb ejector breeches, 3/19, p.112
Titanium sponge, sodium-reduction process, 6/11, p.139
Titanium takes away the heat (Sikorsky assault transport helicopters), 1/30, p.106
Titanium firm: Johnston & Funk, 4/23, p.93

Tool Steels:
A guide to tool steels and carbides (insert), 1/12, p.127

Tooling:
Tooling deadlines plague auto die-makers, 6/11, p.81

Tools: See Power Tools

Tools & Dies:
Dies for pressing problems, do-it-yourself, 3/26, p.152
Kirksite dies melting furnace, aircraft maker, 6/18, p.178
Shipments, industry report, 1/16, p.49; 6/25, p.51

Tools (Cutting):
Carbide blanks, faster tool for chamfering, 5/14, p.136
Carbide tools sharpened by electrical discharge grinding, 3/26, p.155
Ceramic tool bit tests, 3/26, p.152
Ceramic tools challenge carbides, 1/30, p.89
Ceramic tools challenge machines, 5/14, p.130
Keramik, ceramic tipped tool, ENG, 6/18, p.147
Progress in cutting tools, 1/9, p.31
Tool Engineers convention, reports, 3/26, p.155
Ultrasonic abrasive cutting tool, 6/11, p.132

Training:
B-L-H welding course, 2/20, p.108
Electronic course, Tampa, Fla., Local, 5/28, p.60
Hughes Aircraft apprentice training, 4/23, p.71
Republic Steel, pipe products sales training, 5/7, p.58
Rockwell Mfg. course: How to teach time study, 3/19, p.47

Transformer Casings:
T-1 steel, tougher material, 2/20, p.145

Transistors:
Industry report, 3/5, p.54

Transportation:
Passenger car production, shipments, 1/2, p.178

Truck-Trailer Manufacturers Assn.:
Elects, B, 4/2, p.92

Truck-Trailers:
1956 forecast, Western Reserve Univ. study, 2/13, p.47
Magnesium truck body, 3/5, p.118
Switchmobile travels rails, streets or fields, 3/19, p.125
Teamwork in truckbuilding (Pollock-White Motor), 1/30, p.45
Trucks, U. S. production, 4/16, p.65

Tube Mills:
Mahoning Valley, Niles, O., mill, 4/30, p.88

Tubing: See Pipe, Tubing, Fittings

Tungsten:
Congress may extend price supports, 3/19, p.50

Tungsten Institute:
Alloy for jet blade study, ENG, 1/9, p.57

Turbines:
Auto gas turbine engines: Dream car economies, 4/23, p.68
GE order backlogs, 4/23, p.77
Gas turbines for helicopters, ENG, 2/27, p.109
GE export shipments, steam turbine generators, 3/26, p.97

U

Ultrasonics:
Ultrasonic abrasive cutting, 6/11, p.132

University of Virginia:
Dr. Arthur F. MacConochie: Shell forming, 2/27, p.128

University of Wisconsin:
Fuels research, 4/16, p.91

Uranium:
Market report, AEC permits, 2/27, p.63
Uranium reserve increased, ENG, 3/5, p.91
Uranium supply surveyed, 2/20, p.67

Used Appliances:
Market report, 4/9, p.65
Trade-in market, 3/26, p.79

Used Drums:
BDSA relief for reconditioning firms, 3/19, p.46

Used Tools:
Used machine tool market, 1/23, p.50

V

Vacations:
1956 trend, longer vacations, 5/21, p.73
Steel companies, before June, 4/9, p.59

Vacuum:
Brazing in a vacuum, 6/4, p.107
Vacuum casting forging ingots, 6/4, p.112
Vacuum melting: The inside story (gas sampling system), 5/7, p.100
Vacuum melt facilities, 6/11, p.145

Valves:
Choosing the right valve (heat treating control), 4/2, p.114
Valvemaking on transfer machine, Detroit style, 3/26, p.143

Venezuela: See South America

Vibration:
Beryllium copper damps vibration, electronic equipment instruments, 5/14, p.139
Nylon tubes take shake, 4/2, p.99

W

Wages:
Auto workers (skilled-unskilled), little differential, 4/2, p.54
Average hourly earnings, pay increases: Steel vs other industries, 5/14, p.68
Deferred wage increases, 1/16, p.38
Foreman, 2/13, p.44
GM payroll-'55, 2/27, p.73
GM increase, 6/4, p.62
Selected industries, wages-hours, 1/2, p.186
Steel hourly pay, 1940-55 (chart), 4/9, p.66
Steel strike demands (see Labor)
Steel wages, hours, employment, 1/2, p.185
Wage increases, areas involved, 3/5, p.45
Wage increases, NAI survey, 4/16, p.45
Wage increases: Steel vs other industries, 5/14, p.68

Warehouses:
Tape directs the conveyor, 5/28, p.126

Warehousing, Distribution:
Finished steel, stainless, alloy, carbon steel: By market classification, 1/2, p.153
Warehouse receipts and shipments of industrial steel products, 1/30, p.41
Warehouse steel stocks, jobbers' share of '55 shipments, 5/14, p.72
See Inventories, Deliveries

Washers:
Preload indicating washer for bolts, 4/16, p.114

Wastes:
Metalworking wastes: Dollar down the drain, 2/6, p.136
Piping system stems acid corrosion, 3/5, p.123

Watches:
ODM surveys imports, 4/16, p.58; test case, 5/28, p.72

Water:
Daily water consumption, 2/6, p.70
More work for water (metalworking), 1/30, p.84
Urban areas need, 4/16, p.46

Waterways:
Fairless Works deepwater channel dispute, 3/19, p.38
Great Lakes channel deepening authorized, 4/16, p.46

Weatherstrip Research Institute:
Elects, B, 2/13, p.77

Welding (Arc):
Automatic welder, make-your-own, 3/19, p.120
Copper-aluminum joined by argon shielded, consumable electrode method, 6/4, p.120
Submerged arc welder, weldment use, 3/19, p.120

Welding (General):
B-L-H: The brass takes a welding course, 2/20, p.108
Lincoln Electric welding predictions, ENG, 1/23, p.69
Welding pipe with consumable insert ring, 5/14, p.144

Welding (Ultrasonic):
Weld without heat, ENG, 6/4, p.101

Welding Equipment:
Welding machinery, industry report, 3/26, p.90

Weldments:
BDSA priority, raw materials, 4/9, p.59
Tips for better weldments trim fabricating costs, 4/23, p.132
Weldment sales, industry report, 3/12, p.87

West Coast:
Carrier Corp., $6-million plant, 5/4, p.95
Commercial aircraft orders, 1/16, p.40
IBM, $15 million expansion, 2/13, p.42; 3/5, p.80
Steel mill, Western Empire Steel Corp., 6/4, p.63
Strip mill, Cold Metal Products, 3/5, p.79

White Collar Workers:
Clerical salary survey, union target, 1/23, p.33

Windows:
Awning-windows, mechanism, 2/20, p.142
Hurricane test, 5/14, p.160

Wire:
Aluminum coated wire: Wiremakers see new market, 6/11, p.175
Anodized aluminum wire, ac process for insulation coat, 3/26, p.80
Beryllium copper wire cloth checks vibration of electronic instruments, 5/14, p.139
Color stitching wire, ENG, 4/23, p.115
Electrotinned copper wire, 1/16, p.90
Reel puts wire in heavyweight class (shipping), 1/9, p.62
Stainless wire thread inserts cast in gray iron, 4/9, p.128
Steel wire in hair and bobby pins, 2/6, p.70
Steel wire protects tire, 2/6, p.79
Tension indicator, 5/14, p.146
Welded wire fabric: Construction-road building use, 1/30, p.133
Wire rope gives up its secrets (flaw detector), AS&W, 1/23, p.78
Wire spirals through plating bath, 6/11, p.129

Wire Mill Equipment:
CF&I: Five ways to stretch wire production, 2/6, p.126
CF&I: Stabilizes output, facilities produce year around, 3/5, p.53

Wirebound Box Manufacturers Assn.:
Meeting report, 4/9, p.69

WOCs: See Government

X, Y, Z

X-Rays:
Automakers radiation tests, 6/18, p.163 and 6/25, p.61
Tests that save, GE, 5/21, p.124
X-ray checks weldments and atomic reactor vessels, ENG, 5/7, p.93
X-ray joins TV inspecting appliance heating elements, 4/30, p.120

Zirconium:
AEC contracts: 1957 zirconium for civilian use, too, 5/7, p.56
Government steps out, 1/9, p.92
Government plant, Albany, Oreg., 3/19, p.46

COMPANY INDEX

A

A. A. Grinding Co.:
Powdered metal gears, IE, 5/21, p.153

Abbott Screw & Bolt Co.:
Adds to plant, B, 6/11, p.95

Abrasive & Metal Products Co.:
Buys Sta-Warm, B, 4/2, p.82

Abrasive Machine Tool Co.:
Face grinder, IE, 6/4, p.132

ACF Industries Inc.:
Builds "Adapto," flat-car piggyback, 1/23, p.42

Acme Abrasive Co.:
Nomograph for grinding costs: J. T. Zawodni, 2/6, p.118

Acme Aluminum Alloys:
Electronics maintenance men, ENG, 2/6, p.117
Chain parts colored twice as fast: C. E. Johnson, 6/11, p.116
Holyoke plant, B, 4/16, p.79

Acme Industrial Co.:
Comparator specimens assure good finishes, 2/20, p.112

Acme Pallet Co.:
Shipping pallets, IE, 5/28, p.162

Acme Steel Co.:
Builds office building, B, 2/13, p.74
Colorstitch wire, ENG, 4/23, p.115
Integrated operations may mean move to producing parts, 4/30, p.63

Acoustica Associates Inc.:
Ultrasonic cleaning equipment contract, ENG, 4/30, p.91

Aero Research Instrument Co.:
Moves, B, 2/20, p.104

Aerophysics Development Corp.:
Plant expansion program, 4/16, p.66

Aetna-Standard Mfg. Co.:
Order backlog, copper-brass, 6/4, p.54

Aget Mfg. Co.:
Dust collector, IE, 2/6, p.149

Air Reduction Co.:
Calcium carbide for desulphurizing process, 3/5, p.100

Air Reduction Sales Co.:
Arc welder uses selenium rectifiers, IE, 4/2, p.117
Brazing flux, IE, 1/16, p.101
Cutting torches raze New York El, 1/30, p.51
Expands industrial gases, plants scheduled, 1/23, p.66
Heliweld head, automatic weld, IE, 5/7, p.123

Airtherm Mfg. Co.:
Space heater, IE, 4/9, p.157

Ajax Electric Co.:
Molten salt pump, IE, 6/25, p.106

Alan Wood Steel Co.:
Builds ore bridge, B, 4/30, p.87
Expands Penco plant, B, 3/19, p.74

Al-Con Chemical Co.:
Rust inhibitor packaged in shaker bags, spray bottles, 5/14, p.148

Allegheny Ludlum Steel Corp.:
Extruded parts, 5/14, p.70
Forging press, Dunkirk Wks., B, 3/12, p.114; ENG, 3/5, p.91
Sells patent rights on vacuum melting, ENG, 6/18, p.147
Titanium expansion, joint project, 4/2, p.81
Tool steels, vacuum melted, IE, 3/12, p.214
Vacuum furnaces, Watervliet plant, 2/6, p.103; 6/11, p.145

Allen Industrial Products Inc.:
Hydraulic shovel, IE, 5/28, p.155

Alliance Machine Co.::
Girder welding machine uses submerged arc, 3/19, p.120

Allied Chemical & Dye Corp.:
Chrome bath patented process, ENG, 5/21, p.109

Allied Mfg. Co. Inc.:
To move, B, 1/9, p.55

Allied Mfg. & Sales Co.:
Platform lift, IE, 5/28, p.132

Allied Products Corp.:
Buys plant, Roseville, Mich., 5/21, p.100

Allis-Chalmers Mfg. Co.:
Brazing with silver alloys, 6/25, p.80
Fork lift truck, 5/28, p.135
Synchronous motor, IE, 4/23, p.149

Allison Co.:
American Chain division, B, 2/6, p.108

Alloy Precision Castings Co.:
Forms departments, B, 2/6, p.108

Alloy Processing Corp.:
Formed, B, 1/23, p.66

All-State Welding Alloys Co. Inc.:
Silver solder, IE, 1/16, p.100

Aluminum Ltd.:
Quebec expansion, hydroelectric project, 5/7, p.146

Aluminium Ltd. Sales Inc.:
Anodized aluminum wire, 3/26, p.80

Aluminum Co. of America:
Aluminum cars, survey, 1/16, p.51
Alumina plant, Tex., B, 5/7, p.81
Aluminum foil mill, Tenn. Works, 2/27, p.97
Antitrust suit, new Justice Dept. action, 2/6, p.77 and editorial on p.73
Expanded potroom facilities, smelting operations, 2/20, p.93
Extrusion press, Lafayette Wks., 6/25, p.79
Forging press, Vernon Wks., B, 5/21, p.102 and 109
Heat treat furnace contract, Davenport, 1/30, p.76
Heavy closed-die forging presses for aircraft, 1/9, p.74
Heavy forging presses for aircraft, 3/26, p.156
Ingot handling: Semigantry crane plus roller conveyors, 1/16, p.85
Nonskid tread, IE, 6/18, p.198
Research lab renamed, B, 4/30, p.87
Wilson addresses New York Security Analysts, 5/21, p.164

Alva Allen Industries:
Punch press, IE, 1/2, p.426

American Auto Parts Co.:
Expands, 3/5, p.66

American Bantam Car Co.:
Merged with Pressed Metals, 2/27, p.100; 6/18, p.131

American Blower Corp.:
Fluid drives, IE, 6/11, p.154

American Brake Shoe Co.:
Forms overseas company, 1/16, p.64

American Brass Co.:
Buffalo facilities expanded, B, 4/2, p.90
Cold rolling mills (Torrington): Boost for nonferrous strip output, 3/5, p.108
Mills modernized (Kenosha): Increased mill speeds, coil handling, 4/30, p.87

American Broach & Machine Co.:
Press broach, IE, 3/19, p.132

American Can Co.:
Builds container plant, Cincinnati, 3/26, p.113
Builds in Oregon, B, 1/23, p.67
Can closing machine, IE, 2/6, p.154
Can production forecast, 1/9, p.21
Pinched ears, solderless joint, ENG, 1/9, p.57
Process reduces tin in cans, 5/28, p.69
Research opens can market, 2/27, p.73
Steel processing plants, 6/18, p.99

American Chain & Cable Co. Inc.:
Abrasive cutter, IE, 4/9, p.144
Allison division, B, 2/6, p.108
Component plant, Iowa, B, 4/16, p.79
Division sales offices, new, 5/21, p.106
Hardness testing: Vincent Lysaght, 6/25, p.98
Hardness tester, IE, 3/12, p.204

American Coal Shipping Co.:
Formed to export coal, 6/25, p.59

American Die Casting Machinery Co.:
Die casting machine, IE, 1/9, p.82

American Electro Metal Corp.:
Renamed Schwarzkopf Development, 2/13, p.69

American Engineering Co.:
Moves main office, B, 3/12, p.120

American Gas & Electric Co.:
Generating units bring increased power, 5/21, p.175

AMF Atomics Inc.:
Designs nuclear plants, British Commonwealth, 4/2, p.59

American Machine & Foundry Co.:
R. C. Gott: Management at Work, 4/9, p.75
Development lab, B, 6/4, p.87
Underground plant, Huntsville, Ala., 6/11, p.62

American Motors Corp.:
Capital expenditures, 3/26, p.99
Forecast, next two years, 4/2, p.58
Price increases, 4/9, p.80
Rambler sales, 5/28, p.80
Sales report, 2/20, p.80
V-8 engine attractions, 3/5, p.65

American Pullmax Co. Inc.:
Stamping trimmer, IE, 4/9, p.156

American Radiator & Standard Sanitary Corp.:
Builds in Conn., B, 3/5, p.79
Expands stamping plant, B, 6/11, p.98
Merged with Mullins, B, 2/27, p.97

American Smelting & Refining Co.:
Federated Metals' solder plant, West Coast, B, 4/30, p.88

American Solder & Flux Co.:
Flux for cast iron, IE, 2/27, p.140

American Stamping Co.:
Vacation schedule, B, 6/18, p.133

American Steel Foundries:
Elmes tube-reducing press, IE, 4/2, p.118

American Telephone & Telegraph Co.:
Construction program, B, 5/7, p.85

American Viscose Corp.:
Automatic machine for lead cladding, 1/9, p.57

American Welding & Mfg. Co.:
Moves to new plant, B, 2/27, p.97

Anaconda Wire & Cable Co.:
Enlarges facilities, B, 5/7, p.86

Anchor Metal Co. Inc.:
Solder, IE, 6/18, p.207

Anderson Co.:
Roton bearing, 2/13, p.56

Angier Corp.:
Greaseproof wrap, IE, 5/21, p.149

Annis Co., R. B.:
Balancing machine, IE, 2/27, p.136

Ansonia Wire & Cable Co.:
Cumberland, R. I., plant, B, 2/20, p.102

Ansul Chemical Co.:
Dry chemical piped system for fires, 6/4, p.102

Apex Smelting Co.:
Continuous casting of aluminum ingots, 4/2, p.96

Apted Co., Frederick T.:
Skip elevators, IE, 1/2, p.424

Arcair Co.:
Cutting torch, IE, 4/9, p.146

Armco Steel Corp.:
German mill, licensing agreement, 2/13, p.53
Preparing scrap for the open-hearth, 6/18, p.156
Sheffield sintering plant, Houston Wks., layout 1/16, p.76
Steel plant maintenance planning, 3/12, p.168

Armorlite Lens Co.:
Tests resin lenses for safety goggles, ENG, 1/16, p.67

Arnhold Ceramics Inc.:
Powdered metal press, IE, 5/14, p.170

Arteo Corp.:
Pick-A-Case rack, IE, 5/28, p.150

Arwood Precision Casting Corp.:
Moves executive offices, B, 6/4, p.98

Ashworth Bros. Inc.:
Flexible belt, IE, 3/26, p.166

Associated Spring Corp.:
Vacation schedule, B, 6/25, p.76

Ateenaie Inc.:
Stainless treatment, photochemical process, ENG, 2/20, p.107

Atlantic Stamping Co.:
Buys Keiner Stamping, B, 6/4, p.95

Atlantic Steel Co.:
Management at work, J. H. Girdler, 1/16, p.47

Atlas Powder Co.:
Jordan suggests steps in labor arbitration, 5/28, p.77

Atomic Instrument Co.:
Merges, B, 6/4, p.92

Austin-Western Co.:
Hydraulic crane, IE, 5/28, p.167

Auto Specialties Mfg. Co.:
Disc brakes production, 3/12, p.97

Automatic Electric Co.:
Williams on leave to BDSA, 4/2, p.60

Automatic Steel Products Inc.:
Automatic clutch, IE, 2/13, p.118

Automatic Switch Co.:
Builds, N. J., B, 5/28, p.99

Automatic Transportation Co.:
Ram truck attachments, IE, 4/2, p.117
Transporter trucks, IE, 5/28, p.141

Avco Mfg. Corp.:
Bendix drops appliances made by other firms, 6/4, p.54

B

B & T Machinery Co.:
Merges with B & T Eng., 1/16, p.39

BMT Mfg. Corp.:
Barrel finishing, IE, 3/12, p.209

Babcock & Wilcox Co.:
AEC o.k.'s atom tests, 2/20, p.69
Atomic reactor fuel elements plant (Lynchburg, Va.), 1/9, p.33
Boiler contract, American Gas & Electric, 5/21, p.175
Boiler contract, Pennsy Power, B, 4/30, p.87
Commercial atomics in action (Lynchburg, Va.), 6/11, p.134
Hot cropping for top ingot yield, 1/30, p.92

Bailey Co., William M.:
Screw feeder regulates flue dust, IE, 5/14, p.161

Baird Associates Inc.:
Merges, B, 6/4, p.92

Baker Bros. Inc.:
Plastic impression molding press, ENG, 3/26, p.125
Tigges retires, 4/2, p.101
Transfer machine for valvemaking, 3/26, p.143

Baker-Raulang Co.:
Fork truck attachment, IE, 1/16, p.93

Baldwin-Lima-Hamilton Corp.:
Eccentric presses, IE, 1/2, p.426
Extrusion press for Curtiss-Wright, 5/14, p.70
Machines for supersonic nozzle, 5/7, p.114
Metal forming, IE, 6/25, p.106
Reorganizes, dissolves subsidiaries, 2/20, p.96
To build at Waltham, B, 1/16, p.64
Welding course for management, 2/20, p.108

Balteau Electric Corp.:
Portable x-ray, IE, 1/9, p.82

Baltimore Aircoil Co. Inc.:
Builds new plant, B, 4/9, p.96

Barber Die Casting Co. Ltd.:
Installs diecasting machine, 4/9, p.93

Bardons & Oliver Inc.:
Turret lathe—1000 rpm, IE, 2/20, p.147

Barium Steel Corp.:
Financial loan from GE, 5/28, p.60
Ore carrier commissioned, 6/4, p.71

Barnes Drill Co.:
Honing tools, IE, 3/12, p.212

Barnes Engineering Co.:
Positioning table, IE, 6/4, p.129

Barrett-Cravens Co.:
Lift truck, IE, 5/28, p.162

Barry Controls Inc.:
Buys sheet metal firm, B, 5/14, p.95

Bart Mfg. Corp.:
Plating pit-free, heavy nickel, 1/30, p.98

Bartlett & Snow Co., C. O.:
Buys Grindle, B, 4/30, p.87

Basic Refractories Inc.:
Changes name, 4/23, p.97

Batavia Kritzer Inc.:
Buys heating line, B, 6/25, p.76

Baughman Mfg. Co.:
Gear reduction cases, IE, 6/18, p.207

Bay State Abrasive Products Co.:
Auker, E. L.: Management at Work, 4/23, p.75
Electric computer field, 3/12, p.94

Bayer Co., A. J.:
Tape directs the conveyor: D. C. Muller, 5/28, p.126

Beaver Pipe Tools Inc.:
Abrasive division, B, 4/23, p.93

Beckman Instruments Inc.:
Buys Lou-Bar, B, 6/25, p.75

Beech Aircraft Corp.:
Commercial sales, 1/9, p.39
Control system: Use your customers' complaints, 2/13, p.105

Bellows Co.:
West Coast building, B, 4/23, p.101

Benada Aluminum Products Corp.:
Sold, B, 5/7, p.85

Benton & Co., R. W.:
Liquid honing improves surfaces, 1/9, p.71

Benton Harbor Engineering Works:
Flow control valves, B, 5/28, p.152

Beryllium Corp.:
Beryllium copper fights fatigue, printed circuits materials, 5/14, p.151

Bethlehem Steel Co.:
Continuous cleaning - annealing lines, ENG, 4/9, p.111
Expansion program, $300 million, 2/6, p.79
Navy contract for design studies on nuclear power for warship, 4/2, p.48
Shipbuilding shop, B, 3/12, p.118
Sparrows Pt. facilities, contracts, 3/12, p.78 and 3/26, p.113
Sparrows Pt. writeoff, electrolytic steel plate, 1/16, p.43

Betz Corp.:
Sold, B, 4/16, p.79

Bijur Lubricating Corp.:
High-temp lube, ENG, 5/21, p.109

Binks Mfg. Co.:
Hose strap, ENG, 3/26, p.125

Birmingham Can Inc.:
Container plant, B, 6/25, p.76

Black & Decker Mfg. Co.:
Electric saw, safety features, 2/27, p.75

Black Diamond Saw & Machine Works Inc.:
Buys drill-grinder line, B, 1/30, p.70

Blaw-Knox Co.:
Lewis Machinery builds cold rolling mills for American Brass, 3/5, p.108

Bliss Co., E. W.:
American Brass equipment for modernization, 4/30, p.87
Buys Matteson Equipment, B, 5/14, p.98
Expands Calif. facilities, B, 5/21, p.97
Mackintosh-Hemphill: Three rules to cut banding troubles on work rolls, 5/21, p.120
Press line, left-to-right gear drive, IE, 5/7, p.136
Underdrive press, IE, 1/2, p.418

Boeing Aircraft Co.:
Heat treat line for aircraft steels: L. R. Fitch, 5/14, p.124

Bohn Aluminum & Brass Corp.:
Buys Betz Corp. and a Danville plant, 4/16, p.79

Borg-Warner Corp.:
Buys Industrial Crane & Hoist, B, 6/25, p.75
Chemical plant, W. Va., 2/20, p.97
Expands three projects, 4/16, p.79
Load-Lugger, IE, 5/28, p.135

Bound Brook Oil-Less Bearing Co.:
Powdered metal, Compo E, IE, 5/14, p.178

Boylhart, Lovett & Dean Inc.:
Offhand grinder, IE, 4/16, p.122

Brennen, Bucci & Weber Inc.:
Spot welder, IE, 3/5, p.126

Bridgeport Brass Co.:
Buys Hunter Douglas Alum., B, 3/26, p.119
Buys Hunter Douglas (diversifies), 6/25, p.53
Heavy die forging presses, 1/9, p.74

Bristol Brass Corp.:
Cleveland branch, B, 5/14, p.98

Brooks & Perkins Inc.:
How to draw and form titanium, 5/7, p.98

Brown & Sharpe Mfg. Co.:
Buys English site, B, 6/25, p.92
Precision tools, IE, 3/12, p.201
Screw machines with Spray-Lube systems, 4/30, p.123; correction, 5/21, p.153

Brown Steel Supply Corp.:
Changes name, B, 3/19, p.74

Brush Electronics Co.:
Inspection tools: Surfindicator and metal monitor, 4/23, p.129

Bryant Chucking Grinder Co.:
Internal grinder, IE, 6/18, p.187

Bryant Electric Co.:
Expands, B, 5/14, p.98

Buck & Associates, Carl:
Acid cooling refrigeration solution, IE, 1/2, p.424

Buck Tool Co.:
Compensating chuck, IE, 3/12, p.197

Bucyrus-Erie Co.:
Anniversary, B, 1/9, p.55

Budd Co.:
Stainless 201 interchangeable with 301: E. G. Budd Jr. report, 4/30, p.93

Buhr Machine Tool Co.:
Drilling machines, IE, 4/2, p.122

Bullard Co.:
Computer sets production schedule, 4/16, p.103

Burdett Mfg. Co.:
Moves, B, 3/26, p.122

Burg Tool Mfg. Co. Inc.:
Turret drill, IE, 2/13, p.116

Burroughs Corp.:
Expands in Plymouth, B, 3/26, p.116

Butterworth & Sons Co., H. W.:
Sold, B, 1/16, p.64

C

C & D Batteries Inc.:
HA and HB batteries, IE, 5/28, p.136

C.I.T. Corp.:
Equipment leasing lessened, 5/28, p.59

CPS Steel Corp.:
Renamed, B, 3/19, p.74

Cadmet Corp.:
Expands, B, 2/27, p.97

Caine Steel Co.:
Buys Nesco line, B, 6/11, p.101

California Industrial Processing Co.:
Organized, B, 3/19, p.76

Calig Steel Drum Co.:
Cooling conveyor rolls down costs, 4/23, p.122

Cambridge Brass & Copper Co.:
Incorporated, B, 5/7, p.86

Canadian Javelin Ltd.:
Iron ore to Britain, Germany, 5/21, p.64

Canadian Kellogg Co.:
Forms fabricating firm, B, 5/21, p.102

Canadian Ohio Brass Co. Ltd.:
Enlarges plant, B, 3/26, p.113

Cannon-Muskegon Corp.:
Vacuum-melt furnaces, B, 5/28, p.93

Canton Stoker Corp.:
Buys Wagener Steam Pump, B, 1/9, p.55

Canton Tool Mfg. Co.:
Production borer, IE, 5/14, p.171

Carbide & Carbon Chemicals:
Dynel, laminate overlays, 6/11, p.142

Carborundum Co.:
Abrasive buff, IE, 5/14, p.185
AEC contract, zirconium facilities, 5/7, p.56
Insulation block, IE, 3/19, p.129
Nonflammable rope, hi-temp, 5/14, p.142
Research budget, B, 5/21, p.100

Cargill Detroit Corp.:
Hopper-feeder, IE, 2/20, p.159

Cargille Laboratories Inc.:
Test paper for plate, ENG, 5/7, p.93

Carlson Inc., G. O.:
Moves Buffalo office, B, 5/28, p.99

Carpenter Steel Co.:
Die steel for cold heading, ENG, 1/30, p.83
Economize with stainless, 4/30, p.117
Plastic pipe market, 2/27, p.100
Webb Wire anniversary, B, 5/7, p.89

Carrier Corp.:
Central air conditioning for Levittown homes, 1/23, p.43
Expands, B, 4/2, p.81
Industrial air conditioning forecast, 1/30, p.50
Production process, finned heating coils: Where stamping and assembly meet, 6/18, p.160
Stuart, BDSA post, 1/9, p.34
West Coast plant, 5/14, p.95

Case & Son Mfg. Co., W. A.:
Forms subsidiary, B, 1/30, p.67

Case Co., J. I.:
Closes farm implement plant, 4/23, p.59

Case Tractor Works, J. I.:
Automated furnace with flexibility: R. C. Smith, 3/19, p.109

Castle & Co., A. M.:
Warehouse, Franklin Park, B, 2/27, p.97

Caterpillar Tractor Co.:
Apprentice program, 6/11, p.78
Builds at Aurora, B, 5/21, p.106
Builds in Scotland, 2/13, p.53
Road equipment for highway program, 4/16, p.53
Shipley, AFS president, 5/14, p.71

Cavitron Equipment Corp.:
Ultrasonic machine tool, 6/11, p.132

Ceilcote Co. Inc.:
Floor material, IE, 6/25, p.109

Centr-O-Cast & Engineering Corp.:
Buys Die Casting, B, 2/6, p.107

Central Boiler & Mfg. Co.:
Renamed, B, 2/13, p.72

Central Fabricators Inc.:
New name, B, 1/9, p.54

Century Electric Co.:
Motor line, IE, 2/6, p.148

Chain Belt Co.:
Rex Railporter, IE, 6/11, p.147

Chain-O-Flex Corp.:
Trolley conveyors, IE, 6/18, p.196

Champion Rivet Co.:
Dave Champion: Management at work, 2/20, p.75

Chance-Vought Aircraft Inc.:
Sleeve presetter swages tube in position (jets), 5/7, p.111

Chase Brass & Copper Inc.:
Moves at Kansas City, B, 3/12, p.120

Chemical Corp.:
Chemical dip, IE, 1/2, p.428

Chesapeake & Ohio Railroad Co.:
Enlarges Raceland, Ky., shops, B, 5/28, p.96

Chicago Blower Corp.:
Centrifugal fans, IE, 1/16, p.96; 3/5, p.128

Chicago Pneumatic Tool Co.:
Buys Allen Mfg., B, 5/28, p.96

Chicago Rivet & Machine Co.:
Rivet setter, IE, 3/12, p.198

Chicago, Rock Island & Pacific Railroad:
Freight cars, piggyback, other, 1/16, p.49

Chrysler Corp.:
Autos go heavy on light metals, 1/16, p.82

Code: B—*Briefs;* ENG—*Engineering and Production News;* IE—*Industrial Equipment;* YC—*Yearbook Comment*

Capital expenditures—'56, 3/26, p.99
Consolidates Plymouth body plants, 6/11, p.82
Dodge production forecast, 6/18, p.112
Forms engine and transmission mfg. group, 2/20, p.80
Forms stamping & General Mfg. Group, 6/4, p.87
Newark plant to make Plymouth, 1/23, p.54
Newark plant converted, 5/7, p.48
Plymouth-Fury, sports car, 1/16, p.52
Plymouth turbine car test, 4/2, p.68
Progressive die blanking machine, new line, 6/25, p.92
Research activities, 5/14, p.81
Retail salesmen's training program, 3/12, p.98
Sales report, 2/20, p.80; 3/19, p.58
Station wagon, Plainsman, 1/16, p.52
Stock purchase vote for salaried employees, 3/26, p.80
Twinsburg, O., stamping plant: Groundbreaking ceremonies, 1/23, p.33
Starts construction, 1/30, p.54

Cincinnati Copper Works Inc.:
Changes name, B, 1/9, p.54

Cincinnati Grinders Inc.:
Grinding machines, IE, 5/14, p.172
Machines for traverse and infeed grinding, IE, 1/2, p.417

Cincinnati Mfg. Corp.:
Vertical mill, U. S. Burke Div., 2/27, p.138

Cincinnati Milling Machine Co.:
Dividing heads for gear cutting, IE, 4/2, p.117
Heating control cycles, IE, 3/12, p.197
Induction hardening business, 3/26, p.80
Induction hardening machines, IE, 4/16, p.115
Milling calculator, 2/20, p.145
Milling machines, IE, 6/4, p.132
Tool and die miller, IE, 1/2, p.426

Cincinnati Shaper Co.:
Do-it-yourself dies for press brakes, 3/26, p.152

Circo Equipment Co.:
Basket feeder, IE, 5/7, p.133; 5/21, p.140
Expands Rahway plant, B, 3/19, p.74

Clark Controller Co.:
Jung, E. R.: Management at Work, 6/18, p.107

Clark Equipment Co.:
Fork-lift trucks, IE, 5/28, p.132
Lift platform, IE, 5/14, p.182
Schirmer, W. E.: Management at Work, 4/30, p.69
Straddle carrier, IE, 3/19, p.127

Clearing Machine Corp.:
Automatic press, IE, 6/25, p.106
Press for automated line, auto wheel discs (England), 2/20, p.69

Cleaver-Brooks Co.:
Forms marketing unit, 3/5, p.79

Clemco Aero Products Inc.:
Formed, B, 4/16, p.84; address, 5/28, p.99

Clement Co., J. W.:
Forms Clemco Aero, B, 6/25, p.76

Clementina Ltd.:
Abrasive cleaning, IE, 4/23, p.147
Sandblasting machine, IE, 6/18, p.190

Clendenen Bros. Inc.:
Enlarges warehouse, B, 3/12, p.118

Cleveland Cap Screw Co.:
Cold forging machine, 6/18, p.166
Moves, leases plant to GM, 6/4, p.94

Cleveland-Cliffs Iron Co.:
1956 ore prices, 1/2, p.491
Jasper ores from Michigan, four steel companies join project, 2/20, p.68

Cleveland Crane & Engineering Co.:
Traveling hopper, IE, 2/20, p.147

Cleveland Electric Illuminating Co.:
Coal pipeline experiment, 4/23, p.60

Cleveland Graphite Bronze Co.:
Self-aligning bearings, IE, 3/19, p.136

Cleveland Pneumatic Tool Co.:
Buys National Water Lift, B, 2/27, p.102
Plastic-aluminum pistons for aircraft landing gear, 3/5, p.111

Cleveland Punch & Shear Works Co.:
Gap press, IE, 5/7, p.126

Cleveland Twist Drill Co.:
Ccottish plant, 1/9, p.55

Clevite Harris Products Inc.:
Renamed, B, 4/2, p.82

Climax Molybdenum Co.:
Moly market, uses, 4/9, p.175
Plans uranium refinery, B, 6/4, p.92

Clipper Diamond Tool Co. Inc.:
Moves, B, 5/21, p.106

Clover Industries Inc.:
Thread protector, IE, 1/16, p.101

Clow & Sons Inc., James B.:
Expansions, modernizations, 3/5, p.79

Coast Aluminum Co.:
Calif. plant, B, 6/18, p.129

Cockran Foil Co.:
Schmied, O. K., BDSA post, 6/25, p.54

Cogsdill Tool Products Inc.:
Deburring tool, IE, 3/12, p.202

Cohen Co., M.:
Re-enters metal field, B, 2/27, p.97

Cold Metal Products Co.:
Los Angeles cold-rolled strip mill, 3/5, p.79

Coles Cranes Inc.:
Crane, IE, 5/28, p.145

Colonial Broach & Machine Co.:
Broach for automotive lever arms, 5/21, p.130
Broach for cam sprags, 5/14, p.130
Broaching machines, IE, 5/21, p.150
Horizontal broach, IE, 6/25, p.106
Tilting fixture on broach, 1/30, p.101

Colonial Iron Works Co.:
Establishes divisions, B, 4/23, p.97

Colonial Metals Co.:
Anniversary, B, 2/27, p.105

Colorado Fuel & Iron Corp.:
Five ways to stretch wire production: C. C. Tappero, 2/6, p.126
Modernization funds, 3/12, p.77
Moves at Chicago, B, 3/19, p.78
Stabilizing program, year around production, 3/5, p.53

Colson Corp.:
Handler Stacker, IE, 6/4, p.130

Columbia-Southern Chemical Corp.:
Natrium titanium plant opens, B, 5/28, p.99

Columbia Steel & Shafting Co.:
Hydraluster tubing, IE, 5/7, p.131

Combustion Engineering Inc.:
Atomic reactor plant, 2/20, p.99

Comfort Spring Corp.:
Consolidates plants, B, 4/9, p.96

Commonwealth Edison Co.:
Atomic power plant, 5/14, p. 74

Conax Corp.:
Thermocouple glands, IE, 6/25, p.111

Conlon-Moore Corp.:
Moves headquarters, B, 6/18, p.133

Conoflow Corp.:
Sold, B, 2/6, p.111

Consolidated Edison Co.:
Atomic power plant, 5/14, p.74

Consolidated Electrodynamics Corp.:
Vacuum melting: The inside story oy S. A. Dawkins, 5/7, p.100

Consolidated Machine Tool Corp.:
Lathe, 144-in. swing, 1/19, p.57

Continental Can Co.:
Builds at Sharonville, O., 1/30, p.73
Building site, San Leandro, B, 3/26, p.119
Metal can markets, research aids, 2/27, p. 74
Research lab dedicated, 6/25, p.75

Continental Foundry & Machine Co.:
Rolling equipment for German mill, 2/13, p.53

Continental Packaging & Processing Inc.:
Contract packers, growth surveyed, 2/20, p.67

Continental Screw Co.:
Building for affiliate, B, 1/30, p.70

Continental Steel Corp.:
Wire carrier for coils, 1/9, p.62

Conversion Chemical Corp.:
Aluminum oxidation, IE, 3/5, p.134

Cooper-Bessemer Corp.:
Compressor, IE, 2/6, p.154

Copco Steel & Engineering Co.:
Aluminum truck-trailers, Centerline plant, 4/2, p.68

Cope Inc., T. J.:
Expanded metal for conduit and cable, ENG, 5/7, p.93
Moves manufacturing operations, 1/16, p.65

Copeland Refrigeration Corp.:
Compressor, IE, 5/14, p.162
Expands, B, 5/21, p.100

Corning Glass Works:
Glass powder molds, ENG, 5/14, p.117
Refractories div. formed, B, 2/13, p.74

Cowles Chemical Co.:
Buffing cleaner, IE, 1/2, p.424

Cramet Inc.:
Republic Steel to buy, 2/27, p.70
Republic-Crane, partnership, 6/11, p.62; 6/18, p.125
Titanium mill products, prices, 3/5, p.46

Crane Co.:
Strategic metal processing facilities, 3/19, p.71

Crescent Metal Products Inc.:
Utility rack, IE, 5/28, p.160

Crown Cork & Seal Co. Inc.:
Tin plate handling at lithography plant, 3/19, p.118

Crucible Steel Casting Corp.:
Buys Cleveland foundry, B, 6/18, p.125
Dr. Maurice J. Day: Management at Work, 2/13, p.51
Nomograph for grinding costs: W. G. Slack, 2/6, p.118
Sendzimir cluster mill at Midland Wks., 1/23, p.43
Spring Div. formed, B, 5/21, p.100

Cummins Engine Co. Inc.:
Expands, B, 4/2, p.86

Curtis Machine Corp.:
Abrasive polishing, IE, 5/7, p.131

Curtiss-Wright Corp.:
Extrusion press, Buffalo, 5/14, p.62 and p.70
Ultrasonic degreasers, IE, 5/21, p.152

Cutler-Hammer Inc.:
L. A. plant, B, 3/5, p.86

D

Dahlstrom Machine Works Inc.:
Lineal surface measurement, IE, 2/27, p.135

Dana Corp.:
Tight space forces efficiency, 6/18, p.169

Daubert Chemical Co.:
Rust inhibitors, IE, 5/7, p.132

Davis Boring Tool: See Giddings & Lewis

Davison Chemical Co.:
Expands strategic metal processing facilities, 3/19, p.71

Dawson Corp.:
Chromplater, IE, 4/30, p.129

Dayton Pump & Mfg. Co.:
Changes name, B, 1/30, p.67

Dayton Rogers Mfg. Co.:
Die cushion, IE, 4/16, p.123

Dayton Steel Foundry Co.:
Expands, B, 6/4, p.92

Dearborn Gage Co.:
Forms air gaging div., 2/20, p.93

DeJur Amsco Corp.:
Diecast housing for camera, 2/13, p.95

De Laval Steam Turbine Co.:
Expands foundry, B, 5/14, p.95

Denison Corp.:
Mechanism handles awning windows, 2/20, p.142

Denison Engineering Co.:
Press ram pressure 500 to 2000 lb, IE, 3/12, p.195

Destiny Products Co.:
Lubricant additives, IE, 2/6, p.146

Detrex Corp.:
Automatic degreaser, IE, 4/23, p.140

Detroit Steel Corp.:
Portsmouth blast furnace rebuilt, 1/23, p.43
Portsmouth expansion program, 3/12, p.116
Portsmouth mechanical scarfer, 4/2, p.104

DeVilbiss Co.:
Paint heater, IE, 5/14, p.162
Paint pump, IE, 6/11, p.148

Diamond Alkali Co.:
Forms new units, B, 1/30, p.76
Teletype system, 4/9, p.68

Dings Magnetic Separator Co.:
Buys Chisholm, Boyd, B, 1/30, p.73

Dixie Pipe & Foundry Co.:
To build, B, 5/21, p.102

DoAll Co.:
Band saw, foot control, IE, 2/27, p.142
Black granite plates, IE, 4/23, p.142
Gage blocks, 6/25, p.94
Power saw, IE, 3/12, p.206

Dodge Mfg. Corp.:
Speed reducers, IE, 4/9, p.152

Dodge Steel Co.:
Gooseneck for diecasting machines, IE, 5/7, p.133

Doehler-Jarvis: See National Lead

Donnelly Mfg. Co.:
New plant move, B, 1/30, p.76

Dorr-Oliver Inc.:
Buys Merco Centrifugal, B, 3/5, p.80

Douglas Aircraft Co.:
Giant fabrication line, production mills, 1/9, p.73
Heat treating superstrength steels: L. M. Stanton, 6/18, p.150
Nylon mandrels for tube bending, ENG, 5/21, p.109
Titanium replaces stainless for bomb ejector breeches, 3/19, p.112
Wire cutting and identifying for Skyray, ENG, 5/7, p.93

Dow Chemical Co.:
Builds, Baton Rouge, B, 3/26, p.122
Facilities operating at Freeport and Valasco, Tex., 2/13, p.132
Magnesium tooling plate sales, 6/18, p.229
Magnesium truck body, 3/5, p.118

Code: B—*Briefs;* ENG—*Engineering and Production News;* IE—*Industrial Equipment;* YC—*Yearbook Comment*

Dow Corning Corp.:
Expansion completed, B, 2/13, p.74

Dow Furnace Co.:
Automated batch furnace, IE, 4/30, p.126

Dresser Industries Inc.:
British offices, 2/20, p.77

Drever Co.:
Scale-free heating in direct-fired furnace, 3/5, p.105

Drillmation Co.:
Automatic tapping machine, IE, 3/12, p.215

Duff-Norton Co.:
Chain hoist, IE, 1/16, p.96; 5/28, p.142

Dumore Co.:
Precision drill, IE, 4/16, p.117

Dunlop Rim & Wheel Co.:
Automated line makes auto wheel discs, 2/20, p.69

Dunmore Co.:
Flexible shaft IE, 2/13, p.120

Du Pont de Nemours & Co., E. I.:
Titanium dioxide plant, B, 2/6, p.107
Titanium for civilian uses, 4/2, p.55

E

Eastern Brass & Copper Co.:
President meets customers at monthly luncheons, 6/4, p.71

Eastern Stainless Steel Corp.:
Expands, B, 5/28, p.93
Sendzimir mill, 1/30, p.67

Eastown Tool & Engineering Co.:
Facing machine, IE, 4/9, p.146

Eaton Mfg. Co.:
Enlarges Reliance plant, B, 1/23, p.67

Eberhart-Denver Co.:
Sold, B, 3/5, p.84

Eclipse Fuel Engineering Co.:
Aluminum melt furnace, IE, 6/4, p.129
Radiant heating tubes, IE, 4/9, p.156

Edgcomb Steel of New England Inc.:
Gloves sprayed with tungsten for safety, ENG, 2/13, p.91

Edison Inc., Thomas A.:
Emergency lighting, IE, 5/28, p. 148

Edward Valves Inc.:
Enlarges lab, B, 2/6, p.107

Elchlay Corp.:
Blast furnace rebuilding, less down time, 2/13, p.100

Eidal Mfg. Co.:
Bar bender, IE, 2/13, p.116

Electric Auto-Lite Co.:
Anodized aluminum grilles-trim, 3/12, p.78

Electric Storage Battery Co.:
Storage batteries, IE, 5/14, p.174

Electro Manganese Corp.:
Sold to Foote Mineral, B, 4/23, p.93

Electro Metallurgical Co.:
Ashtabula plant in operation, B, 5/21, p.97
Ashtabula plant-titanium production, sodium-reduction caps, 6/11, p. 139
Economies in making stainless: Oxygen input rate makes chaeper melting practices, 3/19, p.102
Forms new unit, B, 5/21, p.97
Nuclear magnetic spectrometer, ENG, 3/5, p.91

Electro Refractories & Abrasives Corp.:
Alumag furnace linings, IE, 4/16, p.122
Forms grinding wheel div., 3/5, p.83
Grinding wheel, IE, 2/20, p.150

Elliott Co.:
Italian contract for power plant equipment, 2/13, p.42

Elwell-Parker Electric Co.:
Anniversary, B, 4/9, p.102
Platform truck, IE, 4/9, p.148

Emergency Steel Service Corp.:
Builds warehouse, B, 5/7, p.85

Emerson Electric Mfg. Co.:
Cost determination, 3/19, p.83

Emhart Mfg. Co.:
H&H new press is first of a line, 6/25, p.92

Empire Corp.:
Tool lapper, IE, 1/2, p.428

Empire Steel Castings Inc.:
Induction melting furnaces installed, 5/7, p.81

Engelberg Huller Co.:
Abrasive belt grinder, IE, 5/21, p.140

Engis Equipment Co.:
Circular table, IE 3/12, p.198

Eriez Mfg. Co.:
Magnetic conveyors, IE, 4/16, p.116

Etco Tool Co. Inc.:
Drill unit, IE, 4/2, p.119

Euclid Crane & Hoist Co.:
Hoists, B, 5/28, p.160

Ex-Cell-O Corp.:
Adapted standard machine for automatic, 5/28, p.123
Multicutters, bore, chamfer and face in one operation, 3/5, p.114
Tool grinder, IE, 5/14, p.168

Expert Automaton Machine Co.:
Bending machine, IE, 1/2, p.428
Drilling machine, IE, 5/21, p.139

F

Faessler Tool Co.:
Sold, B, 1/16, p.64

Fairbanks Co.:
Elevating truck, IE, 5/28, p.132

Fairbanks, Morse & Co.:
Cabinet dial scales, IE, 3/5, p.126
Moves Electronics Div., 5/28, p.99

Fairchild Camera & Instrument Corp.:
High speed camera, shutter detection, 6/18, p.181

Fairfield Engineering Co.:
Elevator conveyor, IE, 4/16, p.120

Fansteel Metallurgical Corp.:
Titanium oxide for rectifiers, ENG, 4/9, p.111

Farrel-Birmingham Co. Inc.:
Moves at Chicago, B, 5/7, p.89

Farwell Metal Fabricating Co.:
Dial "tune-in" drilling, 4/23, p. 138

Faultless Caster Corp.:
Industrial caster, IE, 5/28, p.167

Federal Products Corp.:
Dial indicators, IE, 3/12, p.201
Electronic gage, IE, 4/16, p.116

Feedall Inc.:
Automatic hopper feeder, IE, 1/2, p.418
Bar unloader, IE, 5/7, p.134
Expands, B, 3/19, p.74

Femco Inc.:
Remote crane control, IE, 2/20, p.153

Fenway Machine Co.:
Nibbler, IE, 1/16, p.96

Ferguson Co., Harry J.:
Power conveyor curves, IE, 4/2, p.121

Ferro Cast Corp.:
Moves, B, 4/9, p.109

Ferro Corp.:
Builds new office, B, 4/9, p.99
Hong Kong sales office, 2/20, p.77

Ferro Powdered Metals Inc.:
Process control system for powdered metal, 5/14, p.118

Firestone Steel Products Co.:
Truck rim coating, ENG, 4/23, p.115

Firestone Tire & Rubber Co.:
Steel cord tire, 2/6, p.79

Firth Sterling Inc.:
Consumable electrode furnace means zirconium price cut, 3/19, p.74
Zirconium-ingot production up, 3/5, p.46

Fisher Scientific Co.:
Lab crucible, IE, 2/6, p.150

Flexrock Co.:
Flooring, corrosion resistant, IE, 1/16, p.96

Flightex Fabrics Inc.:
Buys Faessler Tool, B, 1/16, p.64

Florida Power & Light Co.:
Plans atomic power plant, B, 4/2, p.82

Food Machinery & Chemical Corp.:
John Bean Div., production chart system, 6/11, p.118
Plating pit-free, heavy nickel: Dr. P. H. Margulies, 1/30, p.98

Foote Mineral Co.:
Buys Electro Manganese, B, 4/23, p.93
Lithium offered commercially, 4/23, p.60

Ford Instrument Co.:
Missile Development Div., B, 5/21, p.97

Ford Motor Co.:
Aluminum contract (Reynolds), 1/16, p.32
Annealing furnace contract, 6/18, p.125
Average time for wage earner to buy Ford, 4/2, p.48
Bolt fastening, how tight is tight" C. W. Quillen, 2/27, p.114
Business forecast, Henry Ford, 6/4, p.74
California subsidiary, 5/21, p.84
Capital goods expansion, 3/26, p.99
Continental Mark II, frame characteristics, 2/27, p.83
Continentals, six cars a day, 6/11, p.62
Employees stock purchase plans, 2/6, p.87
Foreign expansion, 2/27, p.64
Freight charges reduced, 2/27, p.84
Indianapolis steel gear plant, 2/20, p.80; 2/27, p.100
Mercury hp boost, 6/4, p.74
Mercury's Montclair Phaeton, 1/9, p.42
Mercury's XM-Turnpike Cruiser, 1/23, p.54
Model E engine plant, Lima, O., 2/6, p.70
Model E, cost to develop, 4/23, p.80
Opposes Michigan group (invalidating SUB), 2/6, p.70
Plating contract (Udylite), 4/9, p.93
Quality check, radioactivity test, ENG, 6/18, p.147
Rawsonville, Mich., plant contract awarded, 4/9, p.80
Research lab: Scientists catch up, 5/21, p.83
Test site, Ariz., 3/5, p.66
Walker, G. W.: Management at Work, 3/5, p.61

Ford Motor Co. of Canada:
Expands, B, 5/21, p.100

Fort Die Casting Corp.:
Sold, B, 2/6, p.107

Fort Worth Steel & Machinery Co.:
Metal armoring, IE, 1/9, p.84

Fostoria Pressed Steel Corp.:
Oven section, IE, 2/20, p.158

Franklin-Balmar Corp.:
Defense change-over, B, p.90

Frasse & Co. Inc., Peter A.:
Conn. warehouse, B, 3/26, p.119

Frye & Associates, George:
Survey: Where top executives come from, 4/16, p.45

Fuller Co.:
Buys Sutorbuilt, B, 1/30, p.76
Pump feeds dust into air slide, 4/30, p.109

G

Garrett Corp.:
Moves Aero Eng. offices, B, 4/16, p.86; 4/30, p.88

Gas Appliance Service Inc.:
Turntable heating unit, IE, 1/16, p.98

Gas Machinery Co.:
Annealing furnace for Ford, 6/18, p.125
Converts furnace, B, 4/30, p.88
Furnace contract, 4/23, p.97

Gasway Corp.:
Strip coating line, rolled-on colors, 4/30, p.96

Gast Mfg. Corp.:
Rotary air motor, IE, 1/9, p.82

Gemmer Mfg. Co.:
Merger, B, 6/25, p.75

General Automation Products Co.:
Rotary index table, IE, 2/20, p. 158

General Controls Co.:
Expands, B, 4/30, p.88

General Dynamics Corp.:
Convair missile plant, 5/14, p.62
Stromberg-Carlson suspends TV output, 4/9, p.60
To build atomic lab, B, 4/2, p.82

General Electric Co.:
Barium loan guarantees 5-yr steel supply, 5/28, p.60
Battery truck motor, IE, 6/18, p.198
Buys Watson Flagg (gear motor transmission component dept.), 1/16, p.64
Canadian GE intercom system, 1/16, p.48
Comparator specimens assure good finishes, 2/20, p.112
Computer line, 1/30, p.34; 2/20, p.96; 4/30, p.34
Computer machinability, Carboloy, 3/19, p.100
Computers for Bank of America, 5/7, p.48
Coolant pump filter, IE, 2/13, p.120
Color TV market, 4/23, p.60
Coolant pump motor, IE, 6/11, p.153
Crane control panel, IE, 5/28, p.145
DC motor line new, 2/13, p.45
DC motors, IE, 2/27, p.135
Earnings, 2nd quarter, 4/23, p.59
Electronics div. vacation schedule, 6/25, p.76
Employee earnings by '66, 3/19, p.37
Expands gas turbine dept., B, 5/21, p.97
Expansion funds, 6/18, p.129
Export shipments of steam turbine generators, 3/26, p.97
Foundry automation (Elmira): GE remolds a foundry, 1/9, p. 60
Foundry research, $750,000 lab, 1/9, p.54
Gas turbine for helicopters, ENG, 6/4, p.101
Induction heaters, IE, 1/2, p.428
Induction motor fits typewriters, ENG, 4/23, p.115
Industrial diamonds, pilot plant, 5/14, p.62
Integral hp motor plant automated, 5/28, p.112
Jet engine honeycomb development, 2/27, p.116
Lab in Lynn, Mass., B, 4/2, p.81
Lathe, 144-in. swing, 1/9, p.57
Louisville: Conveyor leads to loading dock, 1/30, p.87
Motor-generator sets, IE, 1/9, p.82
Pommer, C. G., BDSA post, 2/27, p.76
Porcelain enamel coat, electrostatic process, 4/9, p.115
Sales report, 2/27, p.64
Sales forecast—'56, 5/7, p.48
Shrink fitting gets a boost; R. L. Henderson, 1/30, p.88
TV joins X-ray, test appliances' heating elements, 4/30, p.120
TV receiver cabinets: Where wood and metal meet, 3/19, p.98
Tests that save: X-ray on production line (A. L. Pace), 5/21, p.124
Temperature control of heat treating furnaces; R. M. Sills, 2/13, p.108; 2/20, p.135; 3/26, p.130; 4/2, p.110; 4/30, p.112; 5/7, p.116

Code: B—*Briefs;* ENG—*Engineering and Production News;* IE—*Industrial Equipment;* YC—*Yearbook Comment*

Thickness gage measures coatings, 4/9, p.138
Turbines for 1959, 4/23, p.77
Welding dissimilar metals, 6/4, p.120

General Farm Equipment Co.:
Sold, 5/7, p.59

General Impact Extrusions Ltd.:
Formed, B, 6/11, p.101

General Motors Corp.:
AC Spark Plug Div.: J. A. Anderson, management at work, 6/11, p.77
AC Spark Plug plant, B, 1/9, p.55
Buick:
Axle housings line, forms-welds, 2/13, p.97
Replacement parts and accessories sales, 6/25, p.52
Spline rollers, piston checker, assembly press (new equipment), 2/6, p.132
Transfer press: Package plant in one press, 1/30, p.90
Cadillac:
Anodized aluminum trim on grille, 2/27, p.110
California plant, 4/2, p.68
California plant bids, 4/30, p.88
Capital expenditures forecast, 3/26, p.99
Chevrolet:
Frame construction, 2/13, p.55
Plastic top production, 5/7, p.68
Youngstown assembly plant, 2/27, p.84; delayed, 5/14, p.62
Cost-of-living allowance, downward adjustment, 3/5, p.46
Curtice revises estimate of car demand, 5/21, p.64
Delco fan cooled motor, IE, 6/18, p.190
Design (automatic machines) with man in mind: R. R. Farley, 6/18, p.148
Earnings—1955, 2/13, p.56
Earnings 1st quarter, 4/23, p.59
Electro-Motive diesel expansion, B, 4/2, p.86
Expands Janesville, Wis., plant, 5/21, p.84
Fisher Body retooling cost, 2/27, p.84
Fisher Body scrap conveyors clear the aisles, 6/25, p.84
Freight car laboratory, 4/23, p.66
GMC "BlueChip" line, 3/19, p.58
Gas turbine engines: Dream car economies, 4/23, p.68
Milling machine (gaint), 3/5, p.97
Monopoly charge challenged, 4/30, p.54; 5/21, p.64; 6/4, p.74
Motorama, dream cars displayed, 1/30, p. 53
New Departure:
Steam lines run along catwalks, ENG, 3/19, p.93
Weld scrap metal studs end bar forge, ENG, 3/19, p.93
Oldsmobile:
Air suspension balancer registers wheel unbalance, 2/20, p.80
Banner sales sighted, 4/9, p.80
Overtime cut, 6/4, p.62
Pontiac:
Cast crankshafts of shell molded Armasteel, 3/19, p.57
Crankshafts with a future (malleable teamed with shell molding), 6/4, p.117
Technical center, 5/7, p.67
Technical center: Climate for progress (gyrofinishing), 5/14, p.152
Wage boosts, 6/4, p.62
Wages, payroll, 2/27, p.73

General Refractories Co.:
Builds at Gary, Ind., 6/18, p.129
Builds at Smithville, Ont., B, 3/26, p.116

General Steel Castings Corp.:
Heat treating steel castings: C. B. Jenni, 1/23, p.84

General Welding Co.:
Expands, B, 2/6, p.108

Germanium Products Corp.:
Silicon transistors, ENG, 2/6, p.117

Giddings & Lewis Machine Tool Co.:
Davis Boring Tool buys Kelly line, 4/23, p.93
Giant mill at Douglas, 1/9, p.73
Reorganized into four divisions, 2/6, p.132

Gisholt Machine Co.:
Plastic molds for machine tools, 1/30, p.102

Glidden Co.:
Modern brazing methods: P. D. Johnson, Choose the right brazing method, 4/16, p.106
New kinks in brazing, 5/21, p.114
Resin coatings IE, 1/16, p.96

Globe Iron Co.:
Interlake may buy, B, 4/30, p.87

Goodrich Co., B. F.:
Rubber conveyor belt stands heat, ENG, 4/30, p.91
Solarflex conveyor belting, ENG, 2/6, p.117

Goodyear Tire & Rubber Co.:
Auto tire 14-in., 1/9, p.39
Blowout-proof tire, 6/18, p.111
Buys Illinois plant, B, 1/9, p.54
Hose for open-hearth furnace doors, ENG, 3/19, p.93

Grace Lines Inc.:
Shipbuilding agreement with Maritime Bd., contracts, 1/30, p.46

Granite City Steel Co.:
"A" blast furnace replaced: Up capacity in less down time, 2/13, p.100
Blast furnace moving day, 6/4, p.110
Water needs up, B, 4/2, p.85

Gray Co., G. A.:
G. E. Marx addresses NMTBA, 4/9, p.68

Gray Screw & Bolt:
Tote boxes handle rivets, 4/9, p.130

Great Lakes Carbon Corp.:
Electrodes capacity boost, B, 6/18, p.125

Great Lakes Steel Corp.:
Closed-circuit TV in slabbing mill shearing, 2/20, p.119
Sintering machine for zinc concentrates, 5/14, p.126

Green River Steel Corp.:
High spec steel, Dornin process, ENG, 5/14, p.117
Ingot forging, Dornin process, 6/18, p.158

Greer Steel Co.:
Vacation schedule, B, 6/4, p.98

Gregory Industries Inc.:
Setlock fasteners, IE, 4/9, p.156
Studs used as shear connnectors for buildings, bridges, 2/6, p.81

Grindle Corp.:
Sold, B, 4/30, p.87

Grinnell Co.:
Welding pipe with insert ring, 5/14, p.144

Grip Nut Co.:
Moves Chicago offices, B, 4/23, p.101

Gunite Foundries Corp.:
Expands, B, 4/16, p.79

H

Hahn Inc.:
Buys sprayer line, B, 2/6, p.108

Haller Inc.:
Bolt trimmer, IE, 1/2, p.423
Hobbing press capacities, IE, 2/6, p.145
Shaper-template controlled, IE, 4/9, p.144

Hamilton Automation Inc.:
Press feeder, IE, 1/2, p.428
Sheet feeder, IE, 3/19, p.130

Hammond Machinery Builders Inc.:
Buffing lathe, IE, 5/14, p.174
Carbide tool grinder, IE, 5/21, p.146

Hanson-Van Winkle-Munning Co.:
Aluminum buffing compounds, IE, 2/6, p.157
Buffing wheels, IE, 4/30, p.129
Cadmium plating, IE, 2/6, p.148
Cloth-sisal buffs, IE, 6/4, p.132
Nickel plating, IE, 2/27, p.145
Price cut on germanium rectifiers, 2/6, p.70

Harbison-Walker Refractories Co.:
Builds at Hammond, Ind., B, 4/30, p.87
Storage facilities, B, 4/9, p.96

Hardinge Bros. Inc.:
High-speed lathe, IE, 4/23, p.147
Lathe changes spindle speeds, IE, 5/21, p.139
Lathe, speed control and feed, IE, 3/12, p.197

Harper Co., H. M.:
Extruded parts, 5/14, p.70

Harper Electric Furnace Corp.:
Vacuum furnace 2500° F, IE, 2/13, p.115

Harris-Seybold Co.:
Buys Airtonic Research, B, 5/28, p.99

Harsch Bronze & Aluminum Foundry:
Permanent molds for aluminum castings, 1/16, p.88

Hart Reduction Pulley Co.:
V-belt pulley, IE, 1/16, p.96

Hartford Special Machinery Co.:
Hydraulic feed unit, IE, 2/6, p.146
Machine building blocks, 6/25, p.92
Special machine, IE, 5/7, p.134
Threading machine, IE, 1/2, p.424

Harvey Aluminum Co.:
Aluminum hand forgings, ENG, 2/6, p.117
Moves engineering offices, B, 4/16, p.86
Titanium forgings and extrusion facilities, constant control, 4/2, p.100
Wide aluminum extrusions, uses, 1/16, p.79

Haskins Co., C. R.:
Buys Strand Div., B, 3/26, p.116

Hause Engineering Co.:
Double end machine, IE, 3/12, p.202

Hayden Projects Co.:
Merges, 4/23, p.93

Heald Machine Co.:
Boring machine-two station, IE, 3/5, p.125

Heavy Minerals Co.:
Expands processing facilities, 3/19, p.71

Heli-Coil Co.:
Thread insert for foundry, 4/9, p.128
Thread insert, IE, 1/9, p.78

Hennessy Steel Corp.:
Formed, B, 2/20, p.93

Henry & Wright Div.: See Emhart Mfg.

Heppenstall Co.:
Buys Midvale, B, 1/9, p.55

Hercules Motor Corp.:
Gasoline engines, IE, 5/28, p.135

Heresite & Chemical Co.:
Adds to plant, B, 1/9, p.54

Hevi-Duty Electric Co.:
Convection furnaces, IE, 4/2, p.118
Muffle furnace, IE, 1/2, p.423

Hewlett-Packard Co.:
Van Rensselaer, BDSA post, 2/20, p.72

Heyl & Patterson Inc.:
Ore bridge, B, 2/27, p.97

High Voltage Engineering Co.:
Builds, B, 2/27, p.100

Hill Inc., Walter P.:
Coil expander, IE, 3/26, p.164
Tube sheet drilling, IE, 1/9, p.81

Hill Machine Co.:
Radial drill press, IE, 1/2, p.423
Riveting machine, IE, 1/9, p.78

Hirschmann Co., Carl:
Copy grinding machine, IE, 3/5, p.130

Hitchiner Mfg. Co.:
Adds plant, B, 5/26, p.76

Hobart Bros. Co.:
Carbon-air cutting, IE, 4/9, p.148
DC arc welder, IE, 6/11, p.147
Iron powder aids electrode, IE, 1/2, p.428
Welder, mobile unit, IE, 1/2, p.424
Welding unit, IE, 4/30, p.129

Holcroft & Co.:
Carburizing furnace automated, 3/19, p.109

Holly Mfg. Co.:
Sold, B, 1/9, p.55

Holo-Krome Screw Corp.:
Distribution communication, 5/14, p.110
Research lab, B, 4/2, p.92
Storing of cartons on gravity-feed racks speeds order filling, 3/19, p.121

Holyoke Wire Cloth Co.:
Expands, B, 6/18, p.131

Hoover Electronics Co.:
Adds plant, B, 6/25, p.76

Horizons Inc.:
Research in 1956, four fields, 3/26, p.149

Horsburgh & Scott Co.:
Adds plant, B, 3/5, p.84

Hotpoint Co.:
Ceramic circulator system, 6/18, p.186

Hough Co., Frank G.:
Adds to plant, B, 3/5, p.83

Houghton & Co., E. F.:
Black finish with a bright future: T. E. Murray, 1/23, p.72

Howe & Fant Inc.:
Positioning table, IE, 6/11, p.149
Turret drill, IE, 2/27, p.136
Turret drill, customer assist, 4/16, p.103

Hufford Electronics Co.:
Sold, B, 2/27, p.102

Hughes Aircraft Co.:
Apprentice training, 4/23, p.71

Hunt Steel Co., A. E.:
Sells warehouse, B, 4/9, p.99

Hunter Douglas Aluminum Corp.:
Sold, B, 3/26, p.119; 6/25, p.53

Huron Mfg. Co.:
Spaceheaters installed, 3/26, p.146

Hydraulic Press Mfg. Co.:
Diecasting machine, IE, 2/20, p.147
Merges with Koehring, B, 5/26, p.76
Moves at Chicago, B, 2/27, p.105

Hyster Co.:
Flame hardening upgrades gears: J. P. Bates, 2/6, p.120
Lift truck, IE, 2/27, p.140; 5/28, p.164; 5/28, p.135
Plans Danville, Ill., plant, B, 5/21, p.106

I

Illinois Gear & Machine Co.:
New equipment produced, 1/23, p.66

Illinois Tool Works:
Shakeproof power screw driver, IE, 3/5, p.134

Illinois Zinc Co.:
Merges, B, 4/23, p.93

Industria Hullera San Francisco:
Coking coal reserves, Columbia, 5/7, p.59

Industrial Crane & Hoist Corp.:
Sold to Borg-Warner, B, 6/25, p.75

Industrial Metal Products Corp.:
Automatic lapping machine, IE, 5/14, p.182

Industrial Nucleonics Corp.:
AccuRay gaging equipment, 4/16, p.98
Doubles sales yearly, 5/28, p.69

Ingersoll Milling Machine Co.:
Giant milling machine, 3/5, p.97

Ingersoll-Rand Co.:
Nut rolling tool, IE, 3/12, p.214

Inland Steel Co.:
Continuous casting machinery to produce semifinished steel (study), 3/5, p.45
W. H. Lowe: Management at Work, 5/7, p.63
Stock purchase, employees, 2/6, p.87

Interlake Iron Corp.:
To buy Globe Iron, B, 4/30, p.87

International Business Machines Corp.:
Denies antitrust charges, 6/18, p.92
Flexible shaft unit used for reaming, 2/20, p.146
West Coast expansion, 1/23, p.66; 2/13, p.42; 3/5, p.80

International Chemical Co. Inc.:
Aluminum coolant, IE, 1/9, p.82

International Harvester Co.:
Torgersen, H. A.: Management at work, 6/25, p.57

International Nickel Co.:
Address, Detroit Tech. Section, 5/7, p.89
Employee relations program, 2/20, p.76
Hi-temp alloys for heat barrier, Eng, 5/21, p.109

International Nickel Co. of Canada:
Iron reclaimed from ores, 1/23, p.50
Wingate forecasts nickel price, 5/21, p.81

Ipsen Industries Inc.:
Filter, IE, 4/16, p.117

Iron City Tool Works Inc.:
Pipe cleaning, IE, 6/25, p.111

Iron Fireman Mfg. Co.:
Blower motor, IE, 5/14, p.172

Island Equipment Corp.:
Belt conveyor, IE, 5/28, p.138

J

Jack & Heintz Inc.:
Buys plants, B, 4/16, p.82

Jaguar Cars North American Corp.:
Five-seater Jaguar, 5/7, p.68

Jaquith Carbide Die Corp.:
Sold, B, 5/21, p.105

Jet Combustion Co.:
Sold, B, 3/26, p.122

Johnson Co., K. W.:
Wire cloth cover (beryllium copper) vibration mounting for electronic instruments, 5/14, p.139

Johnston & Funk Titanium Corp.:
Formed, 4/23, p.93

Jones & Laughlin Steel Corp.:
Extruded parts, 5/14, p.70
Extrusions for aircraft, ENG, 6/11, p.111
Iron ore deposit, Quebec, 2/27, p.71
Iron ore joint project, Hilton, Ont., 4/30, p.60
Moves at Cincinnati, B, 1/23, p.67
Oxygen converter license, 3/19, p.38
Oxygen converter contracts, 5/14, p.95
Oxygen sampler (system) guards open-hearth efficiency, 2/20, p.116
Product mix changes, 6/25, p.129

Joy Mfg. Co.:
Coal production predicted, 1/9, p.21
Forms turbo-dynamic div., B, 1/30, p.70

K

K S M Products Inc.:
San Francisco office, B, 3/5, p.79

Kaiser Co., Henry J.:
Licenses J&L, oxygen conversion, 3/19, p.38
Reorganization plans, 2/13, p.69

Kaiser Aluminum & Chemical Corp.:
Browne addresses Cleveland analysts (aluminum capacity), 5/14, p.68
Caustic-chlorine plant, Gramercy, La., 1/30, p.122
Expands at Moss Landing, Calif. and Columbiana, O., 2/13, p.69
Expands at Halethorpe, B, 3/12, p.111
Expands container plants, 1/30, p.67
Expands Chalmette reduction plant, B, 4/9, p.99
Foil Kraft division, 1/30, p.67; 4/23, p.93
Gold aluminum without dyes, new material anodized, 3/12, p.88
Perry, R. E., Management at Work, 2/27, p.79

Kaiser Aluminum & Chemical Sales Inc.:
Refractory patching mix, IE, 5/21, p.146

Kaiser Engineers:
Moves executive N. Y. offices, B, 6/4, p.98

Kaiser Motors Corp.:
Changes name (reorganization), 2/13, p.69

Kaiser Steel Corp.:
Expands Fontana mill, 5/28, p.69
Los Angeles fume control for open-hearth stacks, 4/16, p.100
Rail freight car order, B, 4/30, p.87

Kalamazoo Mfg. Co.:
Xpediter truck, IE, 5/28, p.129

Kaufman Mfg. Co.:
Thread tapper, IE, 5/7, p.132

Keegan Steel Fabricating Co.:
Buys Etna Machine plant, B, 4/23, p.97

Keiner Williams Stamping Co. Inc.:
Sold, B, 6/4, p.95

Kelley Co. Inc.:
Automatic dockboard, IE, 5/28, p.138

Kelly Reamer Co.:
Sells tool line, 4/23, p.93

KeMalloy Corp.:
Formed, B, 2/20, p.93

Kenco Mfg. Co.:
Punch press, IE, 2/20, p.156; 6/4, p.130

Kennametal Inc.:
Kentanium, heat resistant base, ENG, 6/11, p.111
Renames subsidiary, B, 1/23, p.67

Kennecott Copper Corp.:
Forms titanium subsidiary, B, 6/11, p.98

Kidde & Co. of Canada Ltd., Walter:
Moves, B, 1/16, p.65

Kinetics Corp.:
Brazing in a vacuum: J. H. Newitt, 6/4, p.107

Klaas Machine & Mfg. Co.:
Smelter feeder, IE, 6/4, p.137

Kling Bros. Engineering Works:
Milling machine, IE, 4/2, p.121

Knapp Mills Inc.:
Lead clad sheet, ENG, 1/9, p.57

Koehring Co.:
Cruiser crane, IE, 5/28, p.138
Merger with Hydraulic Press, B, 6/25, p.76

Koenig Iron Works Inc.:
Builds at Houston, B, 1/30, p.70

Kohinoor Inc., Waldes:
Vacation schedule, B, 6/11, p.104

Koppers Co. Inc.:
Bethlehem contract, mill equipment, 3/26, p.113
Buys Industrial Sound Control, B, 2/6, p.103
Expansion program, 1/16, p.64
Freyn rebuilds Granite City Steel furnace, 2/13, p.100
Sintering plant contracts, Weirton, Great Lakes, 1/30, p.67
Sintering plants (Weirton, Great Lakes): More sinter for the blast furnace, 5/14, p.126

Korhumel Steel & Aluminum Co.:
Sells Bridgeport plant, B, 4/30, p.88

Kuma Tool Corp.:
Sold, B, 4/9, p.96

Kurt Orban Co. Inc.:
Keyway milling machine, IE, 3/12, p.197

Kux Machine Co.:
Diecasting machine, IE, 5/14, p.161

Kwik-Mix Co.:
Bulk handler, IE, 6/25, p.109

L

L & L Mfg. Co.:
Heat treat furnace, B, 6/11, p.149

Laclede-Christy: See Porter Co.

Lake Erie Engineering Corp.:
Diecasting machines, IE, 1/9, p.77

Lamson Mobilift Corp.:
Fork truck, IE, 4/30, p.129
Overload signal, B, 5/28, p.151

Landis Machine Co.:
Thread rolling, IE, 3/12, p.212

Landis Tool Co.:
Crankpin grinding machines automatic, 4/30, p.98

La Salle Steel Co.:
Free machining steel, IE, 1/2, p.426
Hexagonal bars, IE, 2/6, p.157

Lavino & Co.:
Expands facilities, B, 4/2, p.90

Le Baron Foundry Co.:
Stainless cast-in thread inserts placed in mold on sand cores, 4/9, p.128

Ledkote Products Co.:
Expands facilities, B, 2/20, p.93

Lee Silver Service Inc.:
Automates, 1/30, p.44

Lee Wilson Engineering Co. Inc.:
Furnace contract, Wheeling Steel, 6/11, p.95

Leeds & Northrup Co.:
Opens plant, North Wales, Pa., B, 6/18, p.131

Lehigh Structural Steel Co.:
Constructs TWA hanger, 5/21, p.120

Lepel High Frequency Laboratories Inc.:
Index tables, IE, 6/25, p.110

LeTourneau Inc., R. G.:
Powered jib crane, IE, 6/11, p.156
Scorpion design, off-shore drilling platform, 3/26, p.86

LeTourneau-Westinghouse Co.:
Switchmobile, handles switching in congested areas, 3/19, p.125

Lewis Co., G. B.:
Tote pan, IE, 5/28, p.158

Lewis-Shepard Products Inc.:
Buys plant, B, 3/12, p.114
Coil lifters, IE, 1/2, p.423
JackLift, IE, 4/9, p.157
Roll clamp, IE, 2/27, p.135

Lewis Welding & Engineering Corp.:
Welding head, IE, 5/14, p.180

Lewyt Corp.:
Expansion program, 1/23, p.66
Installs oven, B, 6/11, p.98

Lift Trucks Inc.:
Lift trucks new, IE, 5/28, p.155

Liftequip Co.:
Hydraulic stacker, IE, 5/28, p.151

Lincoln Electric Co.:
Arc welding ideas, prizes offered, 1/23, p.90
Griesinger, F. K.: Management at Work, 3/12, p.93
Iron powder electrode, IE, 1/9, p.81
Motor line, Linc-Weld, IE, 4/30, p.126
Welding predictions, ENG, 1/23, p.69

Lincoln Engineering Co.:
Mist lubricator, IE, 4/2, p.121
Oil gun, IE, 6/11, p.153

Lindberg Engineering Co.:
Induction heating device, IE, 2/6, p.153

Lindberg Industrial Corp.:
Buys Jet Combustion, B, 3/26, p.122

Linde Air Products Co.:
Arc welding-glass cup, IE, 4/9, p.154
Blowpipe, IE, 6/11, p.152
Crankshaft machines, IE, 1/16, p.93
Shielding gas, IE, 1/9, p.82
Welding heads, IE, 6/4, p.132

Link-Belt Co.:
Conveyor idler, IE, 3/19, p.129
Expansion program, B, 4/30, p.88
Geared motors, IE, 2/13, p.115
Sectional belt conveyors, IE, 4/2, p.120
Moves executive offices, B, 3/12, p.122

Lipsett Inc.:
Razes New York El, 1/30, p.51

Liquid Carbonic Corp.:
Buys Western Oxygen, B, 6/11, p.104

Lodge & Shipley Co.:
Production shear, IE, 6/18, p.193

Loftus Engineering Corp.:
Annealing furnace, B, 5/21, p.97
Heat treating div., B, 4/23, p.93
Open-hearth contract, B, 1/9, p.54

Logan Engineering Co.:
Speed drive on milling machine, IE, 1/9, p.77

Logemann Bros. Co.:
Steel scrap bales, IE, 3/26, p.163

Loma Machine Mfg. Co. Inc.:
Moves, B, 5/28, p.99

Lone Star Steel Co.:
Earnings report, 1/30, p.33

Lord Machine Co:
Coined flange, award winning idea, 4/23, p.137

Louden Machinery Co.:
Crane electrification, IE, 5/28, p.148

Lucas Machine Div.: See New Britain Machine Co.

Lukens Steel Co.:
TV for furnace line, 5/28, p.71

Lukenheimer Co.:
Steel valve plant, B, 6/18, p.131

Luria Engineering Co.:
Bliss contract, B, 4/9, p.96

Luria Bros. & Co. Inc.:
Canadian office, B, 3/12, p.118

Mc

McDonnell Aircraft Corp.:
Radioactive tools easily located, ENG, 5/7, p.93

McGraw Electric Co.:
Buys five firms, B, 1/30, p.67

McGregor-Michigan Corp.:
New name, B, 2/13, p.72

McKay Co.:
Aluminum chain, IE, 1/16, p.96

McKay Machine Co.:
A. Jay Wardle Jr.: Management at Work, 3/26, p.95
Rim roller, IE, 5/14, p.165

McKee & Co., Arthur G.:
Blast furnace contract at Fairless, 6/11, p.177

McLouth Steel Corp.:
Oxygen converters, B, 5/14, p.95

M

Mack Trucks Inc.:
Forms electronics unit, B, 6/11, p.101
Subsidiary renamed, B, 4/9, p.102

Madison-Faessler Tool Co.:
Formed, B, 1/16, p.64

Magline Inc.:
Magnesium loading ramp, IE, 3/26, p.164
Pallet dollies, IE, 5/28, p.136

Magnaflux Corp.:
Magnetic inspectors, IE, 2/6, p.145

Magnesium Co. of America:
Flat-bed truck, IE, 5/28, p.135

Maguire Co. Inc., Walter:
Heat-resistant brick, IE, 4/2, p.118

Mahoning Valley Steel Co.:
Builds tube mill, B, 4/30, p.88

Mallinckrodt Chemical Works:
Plans uranium refinery, B, 6/4, p.92

Mallory-Sharon Titanium Corp.:
Buys Niles mill, 1/9, p.102
Canadian subsidiary, B, 1/30, p.67

Man-Au-Cycle Corp. of America:
Threading lathe, IE, 5/14, p.168

Manco Mfg. Co.:
Aircraft riveter, IE, 2/20, p.152

Manning, Maxwell & Moore Inc.:
Transfer machine for valve bodies, 3/26, p.143

Mansaver Industries Inc.:
Coil tong, IE, 6/25, p.106

Manufacturers Processing Co.:
Degreaser, IE, 2/20, p.150

Marble Cliff Quarries Co.:
Moves, B, 5/21, p.106

Market Forge Co.:
Skid lift truck, IE, 5/28, p.142

Marquardt Aircraft Co.:
Supersonic heat: A. V. Levy, 4/9, p.112

Mars Engineering & Fabricating Co.:
Conveyor for removing flue dirt, IE, 4/9, p.148

Martin Co., Glenn L.:
Honeycomb thermosetting adhesive, 6/11, p.113

Mason-Neilan Regulator Co.:
Merges, B, 4/2, p.81

Mathews Conveyer Co. Ltd.:
Expands, Ont., 2/27, p.97

Matteson Equipment Co. Inc.:
Sold, B, 5/14, p.98

Mattison Machine Works:
Surface grinder, IE, 6/11, p.147
Wheel face grinder, IE, 4/23, p.142

Mayer-Pollock Co.:
Teamwork in truckbuilding (White Motor body), 1/30, p.45

Mechanical Handling Systems Inc.:
Scrap handling system, 3/5, p.98

Mechanical Mold & Machine Co.:
Leaded plate used for rubber gasket mold, 3/12, p.233

Merco Centrifugal Co.:
Sold, B, 3/5, p.80

Mercury Mfg. Co.:
Huskie tractors, IE, 5/28, p.138

Mesta Machine Co.:
Bethlehem contract, annealing line, ENG, 4/9, p.111
Bethlehem contract, galvanizing line, 3/26, p.113
Bids for government-owned foundry, New Castle, 4/30, p.62

Metal & Thermit Corp.:
Buys Glenn Co., B, 5/14, p.98
Canadian expansion, B, 2/13, p.74
Moves executive offices, B, 4/2, p.93
Moves gen. offices, B, 6/4, p.98
Plant to process titanium ores, B, 2/27, p.100

Metal Spinners Inc.:
Industry report, 1/30, p.50

Metallizing Engineering Co. Inc.:
Metallizing process 4/23, p.70
Metal spray gun, IE, 6/4, p.135

Metallurgical Resources Inc.:
Formed, 3/19, p.71

Metalwash Machinery Corp.:
Strip pickling machines, 4/9, p.134

Metzgar Conveyor Co.:
Assembly top conveyor, IE, 5/21, p.153

Mexico Refractories Co.:
Castable refractory, IE, 5/7, p.133
Merged firms new divisions, B, 5/21, p.105

Michigan Drill Head Co.:
Milling machine, IE, 1/9, p.84
Production machine, IE, 5/21, p.147

Michigan Tool Co.:
Automated gear production, 1/9, p.58
Spline roller, IE, 6/25, p.105

Micro-Positioner Corp.:
Tape-controlled indexing table, IE, 6/4, p.130

Micromatic Hone Corp.:
Honing tackles a misconception, 4/23, p.116
Honing machine, IE, 2/6, p.157

Midvale Co.:
Heppenstall to buy, B, 1/9, p.55

Midvale-Heppenstall Co.:
Buys vacuum melting patent rights, ENG, 6/18, p.147

Mid-West Forging & Mfg. Co.:
Adds to plant, B, 5/21, p.97

Miller Electric Mfg. Co. Inc.:
Electric welders, IE, 1/16, p.101

Miniature Precision Bearings Inc.:
Production of miniature ball bearings, sales value per day, 6/25, p.59

Minneapolis-Honeywell Regulator Co.:
Pushbutton drill, dial controls, 4/23, p.138

Minnesota Mining & Mfg. Co.:
Elastomeric adhesive, 3/19, p.128
Honite Ceramicones for barrel finishing, IE, 4/30, p.126
Plastic film, IE, 6/4, p.135
Tape directs the conveyor: S. M. Alder, 5/28, p.126
Thermosetting adhesives, IE, 2/20, p.150

Misco Precision Casting Co.:
Builds third plant, B, 1/9, p.54

Modern Engraving & Machine Co.:
Embossing quality forged in: Three-dimensional patterns in sheet metals, 2/13, p.102

Modern Industrial Engineering Co.:
Bonding machine for automatic transmissions and brakes, 1/23, p.90
Gear chamfering, IE, 2/20, p.156
Gear deburrer, IE, 4/2, p.118

Modern Machine Tool Co.:
Bar feeder, IE, 2/13, p.115

Mohler Co.:
Trim press, IE, 3/5, p.132

Monarch Machine Tool Co.:
Engine lathe, spindle speed, IE, 1/2, p.417

Monsanto Chemical Co.:
Shell mold resin, IE, 5/21, p.145

Moore Special Tool Co.:
Universal measuring machine, IE, 3/19, p.136

Morey Machinery Co. Inc.:
Profile miller, IE, 4/2, p.120

Morgan Engineering Co.:
Shot blasting room, ENG, 2/20, p.107

Morse Chain Co.:
Buys Eberhart-Denver, B, 3/5, p.84

Morton Mfg. Co.:
Flash trimmer, IE, 5/7, p.126

Mosler Safe Co.:
Electronics field, B, 6/4, p.91

Motch & Merryweather Machinery Co.:
C. R. Kubik: Management at Work, 2/6, p.85
Milling-centering machine, IE, 4/16, p.120
Sells Triple M Products Div., 2/6, p.108
Transfer machine, IE, 3/19, p.130

Motor Products Corp.:
Suspends auto part production, 4/16, p.45 and p.66

Motorola Inc.:
Hans Schiff: Management at Work, 5/21, p.79

Mullins Mfg. Corp.:
Merged with American Radiator, 2/27, p.97

Murray Corp. of America:
Enlarges Salem plant, B, 5/28, p.96

Murray-Way Corp.:
Polishing wheel, IE, 1/2, p.418

Muskegon Piston Ring Co.:
Cupola dry blast for uniform microstructure, 4/9, p.140

N

Nadel Tool & Mfg. Co. Inc.:
Press feed, IE, 4/23, p.152

National Acme Co.:
English chucking machine license, 3/19, p.100
Vertical chucker, eight spindles, IE, 3/19, p.127

National Automatic Tool Co. Inc.:
Donation fund via payroll deductions, 6/18, p.92
Foreign sales pushed, 6/18, p.99

National Broach & Machine Co.:
Article: Shaving process keeps gears in mesh, 4/9, p.118
GRS gear speeder inspection, IE, 5/7, p.123
Gear checker, IE, 4/23, p.139
Gear gaging, IE, 3/12, p.214
Gear shaver, IE, 3/19, p.128; 6/4, p.130

National Can Co.:
Nylon tubes for machines, take vibration, 4/2, p.99

National Carbide Corp.:
Ashtabula plant sold, B, 4/16, p.82

National Cylinder Gas Co.:
Arc welder line, IE, 4/23, p.154
Moves purchasing, B, 4/2, p.93

National Distillers Products Corp.:
AEC contract, zirconium facilities, 5/7, p.56

National Engineering Co.:
Sand mixer, IE, 4/9, p.143

National Lead Co.:
AEC uranium mill, B, 4/16, p.79
Doehler-Jarvis diecast alum. auto block, 4/23, p.68
Doehler-Jarvis expands at Toledo, Grand Rapids, 4/9, p.93
Expands titanium output, joint venture, 4/2, p.81

National Lock Co.:
To build screw and bolt plant, B, 1/16, p.64

National Machinery Co.:
Boltmaker machine, cold header, 6/18, p.166

National Research Corp.:
AEC contract, zirconium facilities, 5/7, p.56
Aluminum substitute for tin in containers, study, 4/9, p.111
Studies remote fuel element fabrication, ENG, 6/18, p.147

National Screw & Mfg. Co.:
Hand hoists, IE, 5/28, p.136

National-Standard Co.:
Coated steel wire, IE, 6/4, p.130
Nickel electrodeposited on wire in plating bath, 6/11, p.129

National Steel Corp.:
Expansion program, B, 1/30, p.67
See Weirton Steel Co.

National Supply Co.:
LP-gas lift trucks, 2/20, p.126
Mexican subsidiary, B, 1/30, p.73
Zircon sands improve steel castings, 2/27, p.121

Newage International Inc.:
Hardness tester, IE, 4/23, p.148

New Britain Machine Co.:
Lucas Machine Div.: Work fixtures mounted on boring mill machine lathe bed castings, 4/2, p.115

Newcomer Products Inc.:
Detroit office, B, 2/20, p.102

New England Tubular Rivet Inc.:
Moves, B, 6/25, p.76

New Jersey Zinc Co.:
Buys plant, B, 4/23, p.97

New York Central Railroad:
Freight yards planned, B, 4/2, p.88

Newman-Crosby Steel Co.:
Cold rolling mill, pic., 6/4, p.87

Niagara Machine & Tool Works:
Single crank press, IE, 5/7, p.128

Nichols Wire & Aluminum Co.:
Aluminum building sales up, 4/30, p.54

Nielsen Inc., E. V.:
Sheet steel separators, IE, 6/18, p.196

Niles Fire Brick Co.:
Merges, B, 5/21, p.105

Nilson Machine Co., A. H.:
Adds plant, B, 6/4, p.87

Nilsson Gage Co.:
Dial spiral gage, IE, 3/12, p.215

Nooter Corp.:
Transformer castings of T-1 steel, 2/20, p.145

Noranda Mines Ltd.:
Installs furnace, B, 6/4, p.91

Norgren Co., C. A.:
Fog lubricator, IE, 4/23, p.144
Spray lube, IE, 4/30, p.123

Norman Scott Co. of Canada:
Moves plant, B, 6/4, p.98

Norris-Thermador Corp.:
Catalytic muffler for passenger cars, ENG, 3/26, p.125

North American Aviation:
Gang cutter mills wing spars, ENG, 5/14, p.117
Honeycomb panels, 6/11, p.114

North American Philips Co.:
Bearing x-ray analyzer, ENG, 2/27, p.109

Norton Co.:
Ceramic tool bits test, 3/26, p.152
Electric indicator controls taper grinding, IE, 2/6, p.145
Improper mounting cause of grinding wheel failures, 3/5, p.102
Precision drilling, holes in thermocouple, 2/27, p.127
R. D. Lawson: Management at Work, 1/30, p.49
Santa Clara plant, B, 4/16, p.79; opened, 5/21, p.97
Stem pinion grinder, IE, 6/25, p.110

Nutting Truck & Caster Co.:
Trailer coupler, IE, 5/28, p.141

O

Oakite Products Inc.:
Conversion coat, B, 6/11, p.148
Paint booth coating, IE, 5/7, p.126

Ohio Electric Mfg. Co.:
Coil lifting magnet, IE, 3/19, p.129

Ohio Ferro-Alloys Corp.:
Expands, adds electric furnace, B, 5/7, p.85

Ohio Gear Co.:
Speed reducer, IE, 5/7, p.126

Ohio Hoist & Mfg. Co. Inc.:
Pullers, IE, 5/28, p.162

Ohio Honing & Hydraulic Co.:
Honing, from rough to finish, 4/2, p.102

Ohio Steel Foundry Co.:
Builds, B, 5/28, p.93
Rollmaking forges ahead, 4/23, p.124

Okonite Co.:
Buys former Studebaker plant, B, 4/2, p.85

Olin Mathieson Chemical Corp.:
Aluminum plant, Ohio river, 1/30, p.122
Roll-bond metal uses, electronic cases, 5/14, p.122

Onan & Sons Inc., D. W.:
Carbide blanks in chamfering operation, 5/14, p.136

O'Neil-Irwin Mfg. Co.:
Press brake, IE, 3/26, p.166

Ordnance Gauge Co.:
Wire stitcher, IE, 4/30, p.129

Osborn Mfg. Co.:
Brushing machine, IE, 3/12, p.210
Portable lift, IE, 4/23, p.144

Overton Gear & Tool Corp.:
Expands, B, 2/20, p.99

Owatonna Tool Co.:
Tool building, B, 4/2, p.85

P

Page-Hersey Tubes Ltd.:
Canadian tube mill modernized, B, 4/2, p.90

Palnut Co.:
Moves, B, 3/5, p.88

Parker Appliance Co.:
Hose fitting, IE, 5/28, p.132

Parker Rust Proof Co.:
Moves at Chicago, B, 3/5, p.88

Pastushin Aviation Corp.:
Tooling for fuel tanks, 1/16, p.88

Peerless Electric Co.:
Leak checker, IE, 1/16, p.96

Penn Metal Co. Inc.:
Opens branches, B, 3/12, p.114

Pennsylvania Engineering Corp.:
Builds oxygen converters, B, 5/14, p.95

Pennsylvania Scale Co.:
Screw counter, IE, 3/26, p.164

Perfect Circle Corp.:
Auto engine block, replaceable cylinders, 1/23, p.54
Piping stems acid corrosion, 3/5, p.123

Perfection Industries:
Spaceheaters, overhead, infrared, 3/26, p.146

Permacel Tape Corp.:
Mylar tape for laminating metal, 3/5, p.115
Tape aids metalworking, 1/16, p.42

Perolin Co. Inc.:
Moves headquarters, B, 5/7, p.89

Perry-Jenner Steel Co. Inc.:
Dallas warehouse, B, 5/14, p.100

Pettibone Mulliken Corp.:
Yard crane, IE, 1/2, p.426

Philadelphia Steel & Iron Corp.:
Sold, B, 2/20, p.96

Philco Corp.:
Threatens plant closure, 4/23, p.59

Phillips Electric Co. Ltd.:
Expands, B, 5/28, p.99

Phillips Mfg. Co.:
Vapor degreaser, IE, 4/23, p.153

Pickands, Mather & Co.:
Bristol, Que. (Hilton) mine, 1/23, p.50
Bristol-Hilton mine, joint project, 4/30, p.60 and 6/11, p.70

Pines Engineering Co.:
Bar bender, IE, 3/12, p.214

Pitney-Bowes Inc.:
Enlarges plant, B, 2/20, p.93

Pittsburgh Consolidation Coal Co.:
Coal pipeline co-op experiment, 1/30, p.33; 4/23, p.60

Pittsburgh Steel Co.:
Earnings report, 1/30, p.33
Matte finishes blasted on mill rolls, 5/14, p.128
Wire mesh containers, IE, 5/28, p.150

Planet Corp.:
Scrap conveyor system for Chevrolet, 3/5, p.98

Pneuma-Serve Inc.:
Self-balancing mount, IE, 6/18, p.187

Pollasky Engineering Co.:
Automatic air-feeder, IE, 5/21, p.147

Polymer Processes Inc.:
Whirlclad coating: Plastic overcoats for metal, 2/20, p.114

Pope Machinery Corp.:
Grinder spindle, IE, 3/12, p.210

Portable Air Cooler & Heater Inc.:
Firms purchase, B, 3/5, p.83

Porter-Cable Machine Co.:
Anniversary, B, 2/6, p.111

Porter Company Inc., H. K.:
Connors Steel expansion, B, 1/9, p.55
Evans report before House committee, 1/30, p.34 and 4/30, p.34
Laclede-Christy expands, B, 6/4, p.94
Markets: It's time to grow, 2/13, p.81
Riverside Metal modernizes strip mill, 4/30, p.64
Vulcan now tool steel distributor, 6/11, p.95

Powell Pressed Steel Co.:
Hopper boxes, IE, 5/28, p.164

Pratt & Whitney Co. Inc.:
Buys Jaquith Carbide, B, 5/21 p.105
Buys Sterling Die, B, 1/23, p.66
Electronic generates contours on cams, templates, IE, 3/12, p.201
Gaging fixture, IE, 1/16, p.101
Sterling Die to build, B, 5/28, p.96

Precise Products Corp.:
Moves, B, 3/12, p.114

Precision Steel Warehouse Inc.:
Expands, B, 4/2, p.86

Precision Welder & Flexopress Corp.:
Automatic press, IE, 6/11, p.154

Pressed Metals of America Inc.:
Merges, 1/16, p.65 and 2/27, p.100; 6/18, p.131

Prime-Mover Co.:
Industrial truck, IE, 5/14, p.185

Production Tool Corp.:
Buys Kuma Tool, B, 4/9, p.96

Progressive Mfg. Co.:
Sold, B, 5/21, p.97

Pullman-Standard Car Mfg. Co.:
Moves executive offices, B, 6/4, p.98

Purdy Co., A. R.:
Buys Korhumel plant, B, 4/30, p.88

Q

Queen Stove Works Inc.:
Supersheen barrel finishing, 5/7, p.114

R

R-S Furnace Co. Inc.:
Furnace contract, Alcoa, B, 1/30, p.76

R-Way Furniture Co.:
Fire door closing system is collision-proof, 2/6, p.124

Radio Corp. of America:
Electronics report, 3/19, p.37
Sarnoff recommends atomic reactors on college campuses, engineer poll, 5/14, p.71
Technicians can relieve engineers, 5/7, p.53

Ramset Fastening System:
Shure-Set tool, IE, 5/7, p.123

Rapids-Standard Co. Inc.:
Flow bench conveyor, IE, 5/28, p.158

Raydyne Corp.:
Balancing machine, IE, 4/16, p.118

Raymond Corp.:
Walkie-electric truck, IE, 5/28, p.135

Redmond Co.:
Builds plant, Angola, Ind., B, 4/2, p.82

Reed-Prentice Corp.:
Dayton sales office, B, 3/12, p.120

Reed Roller Bit Co.:
Jack Grundy: Management at Work, 5/14, p.77

Reintjes Co., Geo. P.:
Basic roof in open hearth, IE, 3/5, p.125
Suspended wall for furnaces, IE, 1/2, p.424

Reliance Electric & Engineering Co.:
Builds plant-office, B, 4/9, p.99
Gearmotor line, IE, 6/4, p.129

Reliance Steel Co.:
Renamed, B, 6/11, p.98

Rem-Cru Titanium Inc.:
Sales offices, New York-Chicago, 1/ 5/21, p.105

Republic Foil & Metal Mills Inc.:
Enlarges plant, B, 5/14, p.98
Extra-thin foil, B, 4/23, p.93

Republic Flow Meters Co.:
Buys Swartwout line, B, 1/30, p.70

Republic Steel Corp.:
Bolt and chain division, 1/16, p.64
Cramet interest purchase, 2/27, p.70; 6/11, p.62; 6/18, p.125
Detroit warehouse enlarged, B, 3/19, p.76
Expansion, four plants, 2/6, p.78
Financial report, 1/30, p.33
Gondola covers protect shipments, IE, 5/28, p.141
Pipe products sales training program: Order Makers' Institute, 5/7, p.58
Research lab planned, 5/7, p.86
Smith, Earle, visits Atlantic Steel, 1/16, p.47
Stainless for atomic use, 5/28, p60
Truscon Steel Div.
Modernization program, 5/28, p.96
Niles branch, metal door and frames, 2/27, p.97
Window hurricane test, 5/14, p.160
White forecasts steel operating rate, 5/28, p.68

Research-Cottrell Inc.:
Dust collector, IE, 6/25, p.105

Revco Inc.:
Gear reducer, IE, 2/20, p.159

Revere Camera Co.:
Movie camera, diecast, 2/13, p.95

Revere Copper & Brass Inc.:
Copper price up, 3/19, p.28
Expands tube mills, B, 4/23, p.93
Tubing from a strip mill, 1/23, p.76

Revolvator Co.:
Pallet truck, IE, 5/28, p.158

Reynolds Metals Co.:
Aluminum foil plant, Calif., B, 6/4, p.92
Ford aluminum contract, 1/16, p.32
Moves Miami, Fla., div., B, 1/16, p.65
Steelworkers agreement, job classification, 5/21, p.64
Warehouses for aluminum tubing, B, 3/26, p.113

Rheem Mfg. Co.:
Diversification move, 4/23, p.80

Richards Co.:
Billet descaler, IE, 3/5, p.132

Richards-Wilcox Mfg. Co.:
Dispatch system, overhead conveyor, IE, 5/28, p.136

Richmond Steel Co.:
Moves fabrication depts., B, 5/26, p.76

Rigidized Metals Corp.:
Metal patterns, IE, 4/9, p.154

Robberson Steel Co.:
Move, long-range planning, 3/5, p.84

Robbins Co., Omer E.:
Sine plate, IE, 2/13, p.122

Robbins & Myers Inc.:
Moyno pump, IE, 5/28, p.129

Roberts & Randolph Ultrasonic Co.:
Enlarges lab, B, 3/12, p.111

Robertshaw-Fulton Controls Co.:
Bridgeport div. expands, B, 4/23, p.97

Robinson Clay Product Co.:
Castable refractories, IE, 2/20, p.152

Rockford Machine Tool Co.:
Hydraulic slotter, IE, 3/26, p.168

Rockwell Mfg. Co.:
Belt grinder, IE, 3/19, p.128
Buys Georgia plant, B, 2/13, p.72
Buys Locomotive Finished Materials, 2/27, p.97
High metal prices report, 4/9, p.59
Time study system, 3/19, p.47

Rolled Alloys Co.:
Warehouse, N. J., 2/20, p.93

Ross Gear & Tool Co. Inc.:
Merged with Gemmer, B, 6/25, p.75

Roto-Finish Co.
Automated barrel finisher, ENG, 4/2, p.95

Roto-Mation Inc.:
Torque motor, IE, 3/12, p.215

Rowe Methods Inc.:
Buys Bumpers Inc., B, 3/5, p.84
Dock levelers, IE, 5/28, p.129

Ruesch Machine Co., H. J.:
Rolling mills, IE, 1/2, p.418

Ruger Equipment Inc.:
Truck mounted crane, IE, 5/28, p.150

Russell, Burdsall & Ward Bolt & Nut Co.:
J. S. Davey: Management at Work, 1/23, p.49
Bolt torquing, ENG, 4/9, p.111
Machine bolt or capscrew? 6/18, p.175

Rusticide Products Co.:
Compound for metal, IE, 3/5, p.129

Ryan Aeronautical Co.:
Chromium plating rocket engines, 1/16, p.74
Tailored tools meet schedules, 4/9, p.132
Titanium exhaust takes away heat in helicopter design, 1/30, p.106

Ryder & Son Ltd., Thomas:
Vertical chucking machine, 3/19, p.100

Ryerson & Son Inc., Joseph T.:
Service plant, B, 6/4, p.95
Steel color code system, 5/21, p.75

S

S. O. & C. Co.:
Plans stamping plant, B, 3/5, p.83

Code: B—*Briefs;* ENG—*Engineering and Production News* IE—*Industrial Equipment;* YC—*Yearbook Comment*

SAE Steels Inc.:
Buys Hunt warehouse, B, 4/9, p.99

SKF Industries Inc.:
Bearings have lubricating holes, IE, 2/13, p.118

St. Joseph Lead Co.:
Prices raised, 1/9, p.92
Will not enter aluminum field, 5/21, p.164

Sage Equipment Co. Inc.:
Gravity wheel conveyor, IE, 2/27, p.138
Wheel conveyors, IE, 5/28, p.141

Saginaw Bearing Co.:
Silicone paint resists heat, 3/5, p.92

Sahlin Engineering Co. Inc.:
Iron hand, IE, 6/18, p.204

Salvo Tool & Engineering Co.:
Pipe thread rolling, IE, 1/9, p.82

Sawyer Bailey Corp.:
Centrifugal compressor, IE, 1/16, p.98

Schwartzman Mfg. & Supply Co.:
Enlarges plant, B, 6/11, p.101

Schiegel Mfg. Co.:
String buffs, IE, 6/18, p.204

Schwarzkopf Development Corp.:
Reorganizes, 2/13, p.69

Scisky Bros. Inc:
Strain gage, IE, 3/26, p.168
Welder timing control, IE, 4/16, p.115
Welding line, IE, 1/9, p.81

Scientific Electric Co.:
Spray system, IE, 6/4, p.132

Scott Paper Co.:
Disposable paper wiper, IE, 3/12, p.215

Scovill Mfg. Co.:
Continuous pickling brass strip, 4/9, p.134
Moves at Cincinnati, B, 3/5, p.88

Seias Corp. of America:
Flame hardening upgrades gears: C. A. Turner Jr., 2/6, p.120
Heat process machine, IE, 2/6, p.153
Moves to Dresher, Pa., 2/20, p.99

Seneca Falls Machine Co.:
Platen-type lathes, 4/23, p.140

Sentry Co.:
Steel hardening furnace, IE, 3/12, p.209

Servel Inc.:
Finding a better way, manufacturing methods, 5/21, p.132
Morrill, John: Management at Work, 4/16, p.61

Sesco Inc.:
Coil loader, IE, 5/21, p.142; 6/4, p.130

Shallway Corp.:
Research center, B, 4/2, p.85
Sand muller, IE, 6/11, p.148
Southern distribution, ENG, 4/16, p.91

Sharon Steel Corp.:
Boston warehouse, B, 6/4, p.92
Brainard strapping sealers, IE, 4/23, p.152
Mallory-Sharon buys Niles mill, Pneumatic stretcher, IE, 3/26, 1/9, p.102
Strapping sealer, IE, 6/11, p.152 p.171

Sheffield Corp.:
Buys Slate Inc., B, 2/20, p.99
Gage lab (Eli Whitney Metrology): A spotlight on millionths, 2/27, p.124
Gage tests bolt tightening, ENG, 5/21, p.109
Hardness tester, metallurgical microscope, IE, 5/14, p.172
Valve machine, IE, 4/23, p.153

Sheffield Steel Div.: See Armco Steel

Shepard Niles Crane & Hoist Corp.:
Crane controller, IE, 5/28, p.152

Sheppard & Co., M. K.:
Use office engineering: Save money, time, 4/9, p.76

Sherwood Brass Works:
Order-invoice system, duplicator, 5/7, p.112

Shieldalloy Corp.:
Titanium-aluminum for sand castings, 2/20, p.130

Sid Tool Co. Inc.:
Moves, B, 1/16, p.65

Siegler Corp.:
Buys Holly Mfg., B, 1/9, p.55
Buys Hufford Electronics, B, 2/27, p.102

Signode Steel Strapping Co.:
Strapping table, IE, 4/2, p.118

Simonds Saw & Steel Co.:
Study, nodular iron temp., ENG, 4/2, p.95

Simplex Machine Tool Corp.:
Boring machine, IE, 3/12, p.204

Sintox Corp. of America:
Ceramic tool material, IE, 4/30, p.123

Slaysman Co.:
Buys firms, expands, B, 3/12, p.118

Smith Co., A. O.:
Cable conveyors, Electric Motor Div., 3/5, p.120
Diecast gasoline pump meter, 2/6, p.135
Expansion plans, B, 6/25, p.75
Glass developments, ENG, 6/18, p.147
Manual arc welder, IE, 4/23, p.139

Smith-Gates Corp.:
To build, B, 6/25, p.75

Snyder Tool & Engineering Co.:
Boring machine, IE, 3/19, p.132
Completes expansion, B, 5/14, p.95
Index machine, IE, 6/18, p.202
Transfer machine, IE, 2/6, p.150
Transfer machine for auto oil pump bodies, ENG, 5/7, p.93

Solar Aircraft Co.:
Airframe parts plant, B, 2/6, p.108
What specifications mean to you: Hiram Brown, 4/16, p.92

Solar Steel Corp.:
Buys United Pipe Column, 1/16, p.65

Somers Brass Co.
Radioactive thickness gage, 4/16, p.98

Sonneborn Sons Inc.:
Floor patch, IE, 6/18, p.193

Southern Electric Steel Co.:
Mill ready to start, executives heading firm, 3/5, p.63

Southern Engineering Co.:
New address, B, 5/28, p.99

Southwest Steel Corp.:
Krieger: Management at Work, 6/4, p.69

Southwestern Ohio Steel Inc.:
Enlarges warehouses, B, 3/5, p.86

Spaulding Fibre Co. Inc.:
Fiber boxes, B, 5/28, p.141

Speed-D-Burr Corp.:
Abrasive for barrel finishing, IE, 4/9, p.157

Speedi-Dri Corp.:
Moves, B, 1/9, p.55

Spee-Flo Co.:
Hot spray, IE, 2/6, p.149
Spray control, IE, 6/18, p.190

Sperry Rand Corp.:
Antitrust against IBM, 6/18, p.92

Spitfire Tool Co.:
Lapping machine, IE, 1/16, p.101; 2/20, p.153

SPO Inc.:
Shell core machine, IE, 3/26, p.164

Sprague Electric Co.:
Builds, B, 4/2, p.85

Square D Co.:
Expansions, 2/20, p.60; 3/12, p.111
Machine tool relay, IE, 6/25, p.108
Martin, T. B.—BDSA post, 4/16, p.58

Stackpole Carbon Co.:
Ceramagnets, ENG, 3/19, p.93

Stanat Mfg. Co. Inc.:
Roll changer, IE, 3/26, p.164

Standard Electrical Tool Co.:
Double-end grinder, IE, 4/9, p.152
Grinder, IE, 4/23, p.150

Standard Fuel Engineering Co.:
Furnace, IE, 5/21, p.142

Standard Pressed Steel Co.:
Aircraft bolt hits new highs, 6/4, p.114
High-strength bolts, IE, 1/2, p.418
Preload indicating washers for bolts, 4/16, p.114
Titanium bolts, 2/27, p.71

Standard Screw Co.:
Buys Revenna Metal Products, 2/20, p.93

Stanley Steel Service Corp.:
Buffalo warehouse, B, 3/26, p.116

Stanley Works:
Expands, B, 6/18, p.129

Stanton Steel Corp.:
Organized, B, 1/23, p.67

Star Cutter Co.:
Carbide-tipped drill, IE, 3/12, p.198

State Metals & Steel Co.:
Buys National Carbide plant, B, 4/16, p.82

Stearns Magnetic Inc.:
Magnetic part separator, IE, 5/14, p.165

Steel Co. of Canada Ltd.:
Continuous galvanizing line, 2/27, p.118
Hilton mines, joint project, 4/30, p.60 and 6/11, p.70

Steel Co. of Wales Ltd.:
Revolving ram truck for coils, ENG, 5/7, p.93

Steel City Testing Machines Inc.:
Hardness tester, IE, 1/2, p.426; 3/5, p.130

Steel Improvement & Forge Co.:
Vacation schedule, B, 6/18, p.133

Steel, Peech & Tozer:
Furnace rebuilding, B, 5/21, p.105

Stephens-Adamson Mfg. Co.:
Bin level control, IE, 5/28, p.151

Sterling Bolt Co.:
Steel studs, IE, 5/28, p.138

Sterling Steel & Supply Co.:
Expands, B, 6/4, p.95

Stevens Inc., Frederic B.:
Liquid core paste, IE, 6/11, p.153

Stoelting Bros. Co.:
Washer cleans Metal parts, IE, 5/14, p.177

Stran-Steel Corp.:
Enlarges Terre Haute plant, B, 2/6, p.103

Studebaker-Packard Corp.:
Aerophysics Dev. expands, 4/16, p.66
Air Force contract-jet engines, 6/18, p.112
Brainstorming for new models, 4/23, p.110
Business outlook, 4/2, p.58
Curtiss-Wright interest, German line possible, 6/25, p.42
Gold anodized aluminum grilles, standard equipment, 4/2, p.68
Horn sound studied, 2/6, p.90
Merger rumor, 4/30, p.74
Merger, Curtiss-Wright interest, German line possible, 6/25, p.42
Packard - Executive introduced, 4/30, p.73
Packard-Predictor, push button model, 1/16, p.52
Packard schedule, rumor, 5/14, p.82
Research service lab, 6/4, p.74
Studebaker trucks, nonslip differential, 2/20, p.80

Stueck Inc., W. Whitney:
Press brake, IE, 4/23, p.156

Sugar Beet Products Co.:
Cream soap, IE, 3/19, p.129

Summit-Roberts Products Inc.:
Instruments checks contours, IE, 5/21, p.149

Sunbeam Corp.:
Electrostatic spray paintint unit, 3/26, p.149

Sundstrand Machine Tool Co.:
Tracer milling, IE, 4/23, p.150

Sun Oil Co.:
Simplify your lubricant needs: B. M. Dunham, 3/19, p.94

Sunshade Corp.:
Moves, B, 6/25, p.75

Superior Steel & Malleable Castings Co.:
Color-coded casting alloys, 3/26, p.191
Nicholas Kowall: Management at Work, 5/28, p.75

Superior Tube Co.:
Builds at Wapakoneta, O., B, 1/30, p.76

Surface Checking Gage Co.:
Surface checking gage, 2/20, p.112

Surface Combustion Corp.:
Builds factory, 2/20, p.99
Contract for U. S. Steel's normalizing line, 1/30, p.67
Humidity conditioners for foundry use, 4/9, p.140

Sylvania Electric Products Inc.:
Moves Electronics Systems, B, 3/26, p.122

Synthane Corp.:
Plastic to metal bond makes lighter hydraulic pistons, 3/5, p.111

Syntron Co.:
Foundry shakeout, IE, 5/14, p.172

Sutton Engineering Co.:
Extrusion press, IE, 5/14, p.180; 6/4, p.130
Straightening machine, IE, 3/26, p.164

T

T.I.W. Western Ltd.:
Organized, B, 5/21, p.102

Tait Mfg. Co.
Formerly Dayton Pump, B, 1/30, p.67

Taper Micrometer Corp.:
Taper micrometer, IE, 6/18, p.196

Taylor & Gaskin Inc.:
Ford contract for structurals, 4/9, p.80

Taylor Devices Inc.:
Formed, B, 3/5, p.84

Taylor Dynamometer & Machine Co.:
Drilling machine, IE, 1/2, p.428

Taylor-Winfield Corp.:
Seam welder, IE, 6/4, p.137

Textron American Inc.:
Buys Benada Aluminum, B, 5/7, p.85

Thomson Industries Inc.:
Hardened bars, IE, 3/26, p.164

Thompson Products Inc.:
Apprentice training, 4/2, p.53
Dage TV at slabbing mill, Great Lakes Steel, 2/20, p.119
Packaging valves, 5/7, p.48

Thor Power Tool Co.:
Air grinders, IE, 4/23, p.148; 4/30, p.132; 5/14, p.180

Timken Roller Bearing Co.:
Handling system: F. C. Wier (More movement, less investment, more profit), 5/7, p.102
The precision touch in grinding: Mike Curtis, 1/23, p.70
Memphis office, B, 2/6, p.114

Tinius Olsen Testing Machine Co.:
Testing machines, IE, 6/4, p.132

Tipp Mfg. Co.:
Cable conveyors, 3/5, p.120

Titan Metal Mfg. Co.:
Brass mill, Calif., B, 2/27, p.102

Titanium Metals Corp. of America:
More heat treatable titanium, 4/23, p.118
Expands, 4/2, p.80
Sendzimir mill for rolling titanium sheet, ENG, 1/23, p.67

Toledo Scale Co.:
Remote weighing, ENG, 1/16, p.67

Toronto Iron Works Ltd.:
Forms fabricating firm, B, 5/21, p.102

Torrington Co.:
Buys Progressive Mfg., B, 5/21, p.97

Towmotor Corp.:
Fork lift trucks, IE, 5/28, p.141

Townsend Co.:
Rivet setter, IE, 5/7, p.126

Tracto-Lift Co.:
Changes hands, B, 1/9, p.54

Tranter Mfg. Inc.:
Heat transfer units, IE, 1/16, p.100
Platecoils, heat transfer, IE, 4/16, p.123

Tree Tool & Die Works:
Vertical mill, IE, 2/27, p.142

Trim Alloys Inc.:
Expands, adds extrusion press, 3/5, p.66

Trimedge Inc.:
Renamed, B, 6/11, p.98

Triune Products Co.:
Transmission shifts automatically, IE, 5/21, p.139

True Temper Corp.:
Plant expansions, 3/5, p.83

Truitt Mfg. Co.:
NLRB ruling, 5/14, p.61

Trundle Engineering Co.:
Renamed, B, 4/, p.93

Tube Turns Plastics Inc.:
Piping system stems acid corrosion, 3/5, p.123

Turchan Follower Machine Co.:
Automatic die sinker, IE, 6/18, p.204

Turco Products Inc.:
Chemical milling, ENG, 6/18, p.147

Twin Disc Clutch Co.:
Torque converter, IE, 4/30, p.126

U

Udylite Corp.:
Ford plating contract, 4/9, p.93

Union Carbide & Carbon Corp.:
Electromet forms unit, B, 5/21, p.97

Union Metal Mfg. Co.:
Corrugated pallets, IE, 5/28, p.129

Union Tool Corp.:
Shear line, IE, 5/14, p.177

Unistrut Products Co.:
Metal framing, IE, 5/28, p.162

United Engineering & Foundry Co.:
GSA sale of New Castle plant, 1/30, p.33
Malborn, BDSA post, 4/23, p.72

United Specialties Inc.:
Welding cable reel, IE, 5/21, p.152

U. S. Electrical Motors Inc.:
Multiple drive system, IE, 5/14, p.178

United States Graphite Co.:
How metallography helps sintering: R. B. Thomson and A. B. Wendt, 5/21, p.110

U. S. Industrial Chemicals Co.:
Builds 2nd zirconium unit, B, 6/4, p.91

U. S. Industries Inc.:
Buys A-1 Bit & Tool, 5/21, p.102
Buys General Farm Equipment, 5/7, p.59

U. S. Rubber Co.:
Steel cord tire, 2/6, p.79

United States Steel Corp.:
AS&W:
Aluminum coated wire, 6/11, p.175
Anniversary, 3/12, p.122
Rod mill, Cuyahoga Wks., 5/7, p.81
Wire fabric mill, 2/20, p.93
Wire rope flaw detector, 1/23, p.78
Annual report: Seeks stabilizing patterns, 3/26, p.87
Austin may retire, 5/28, p.60
Blough reports on:
Engineer shortage causes, 2/6, p.81
Strike outlook, 4/30, p.165
Build corrosion resistance into stainless: J. J. Heger, 4/9, p.117
Columbia-Geneva integrated steel mill plans, 3/5, p.46
Drum plant, output, 3/5, p.57
Expansion, steelmaking capacity, 2/6, p.69
Expansion costs to increase ingot capacity, 5/14, p.68
Expansions: Gary and South Chicago openhearths; Universal Atlas Buffington, Ind., plant, 3/19, p.46
Fairless blast furnace, 6/11, p.177
Fairless deepwater channel dispute, 3/19, p.38
Geneva Steel, Seattle move, B, 2/27, p.105
Ingot production, 4/30, p.165; 5/14, p.68
Iron ore prices to rise, 2/6, p.70
Johnstown Works, furnace contract, 4/23, p.97
Material handling report, 5/28, p.114
National Tube: Steel castings in large shell molds, 4/30, p.91
Normalizing line, Irvin Works, contract let, 1/30, p.67
Pension options offered, 3/19, p.46
Plastic-coated steel experiment, 5/14, p.61
Price changes on bars, 1/2, p.474
Price changes, steel-extras, 5/21, p.176
Research Center, Monroeville: Carbon in steel analyzed, 3/19, p.114
Research center, Monroeville, Pa., 5/7, p.58
Research Dept: Build corrosion resistance into stainless (J. J. Heger), 4/9, p.16
Sintering plant, Houseville, Pa., ENG, 5/14, p.117
TC&I strike hits fabricators, 5/21, p.75
TC&I strike: Advance vacation pay offered, wages, tonnage losses, 6/25, p.41

U. S. Tool Co. Inc.:
Coil straightener, IE, 5/7, p.126

Universal-Cyclops Steel Corp.:
Vacuum melt pilot plant, B, 6/11, p.145

University Machine Corp.:
Surface finish standard comparators, 2/20, p.112

V

Van Norman Industries Inc.:
Buys Butterworth & Sons, B, 1/16, p.64

Vanadium-Alloys Steel Co.:
Die steel, MC steel, IE, 3/19, p.136

Vanton Pump & Equipment Corp.:
Stainless pumps, IE, 2/13, p.124

Vapor Blast Mfg. Co.:
Vapor blast cleaner, IE, 3/12, p.206

Veeder-Root Inc.:
Moves at Cleveland, B, 3/19, p.78

Veet Industries:
Radial drill, IE, 3/5, p.129

Verson Allsteel Press Co.:
Self-dump hoppers handle metal scrap, 5/21, p.138

Vickers Inc.:
Builds in Jackson, Miss., B, 3/19, p.76
Hydraulic Forum, 6/11, p.136

Viking Instruments Inc.:
Expands, B, 3/12, p.114

Vinco Corp.:
Suspends auto parts production, 4/16, p.45

Visioneering Co.:
Engineering design consultants, 4/23, p.71

Vulcan Containers Inc.:
Vacation schedule, B, 6/18, p.133

W

Wagener Steam Pump Co.:
Sold, B, 1/9, p.55

Waltz Furnace Co.:
Brazing-sintering furnace, IE, 3/26, p.163

Walworth Co.:
Buys Conoflow, B, 2/6, p.111

Warner & Swasey Co.:
Work fixtures mounted on boring mill, travelling spindles lathe bed castings, 4/2, p.115
Turret lathe spindle speeds, IE, 3/26, p.163

Warner Electric Brake & Clutch Co.:
Automotive div., B, 2/6, p.107
German outlets, 2/20, p.77
Magnetic clutch design, 6/4, p.73

Warren Alloy:
Frostrode Div. moves, B, 4/9, p.109

Watkins-Dunn Co.:
Formed, B, 4/2, p.82

Watson Flagg Machine Co.:
GE buys, forms gear motor dept., 1/16, p.64

Waukesha Motor Co.:
Diesel engine, IE, 5/28, p.141

Wausau Iron Works:
Expansion program, B, 6/4, p.91

Wean Mfg. Co.:
Shrink fitting bearing assemblies to heavy equipment, 1/30, p.88

Weatherhead Co.:
Brazing unit, 3/26, p.126
Flareless fittings, 5/7, p.111

Webb Forging Co.:
Furnaces whip scale problem, 6/25, p.86

Webber Engineering Corp.:
Moves, B, 5/7, p.89

Weber Aircraft Corp.:
Forms electronics div., B, 3/5, p.86

Webster Electric Co.:
Intercommunication system, 1/16, p.48

Weirton Steel Co.:
Open-hearth contract, B, 1/9, p.54
Oxygen enriches the blast: J. H. Strasburger, 6/11, p.120
Sinter plant built by Koppers, 5/14, p.126

Weldaloy Products Co.:
Moves, B, 1/23, p.67

Wells & Sons, W. F.:
Band saw, IE, 5/21, p.149

Wells Mfg. Corp.:
Band saw, IE, 5/7, p.126

Wesson Co.:
Carbide cutters, IE, 5/21, p.150
Carbide tool holders, IE, 2/6, p.146
Grinder produces microfinishes, IE, 4/9, p.143

West Steel Casting Co.:
Forms alloy div., B, 4/2, p.81

Western Electric Co.:
Installs Kilns, B, 1/16, p.64

Western Empire Steel Corp.:
California plant planned, 6/4, p.63

Westinghouse Electric Corp.:
Appliance production up, 5/28, p.60
Atomic field, developments, 4/9, p.93
Atomic reactor test lab, B, 4/2, p.86
Builds plant, Bloomington, Ind., 4/30, p.54; 5/21, p.97
Builds plant, Dover, N. J., B, 3/12, p.116
Centrifugal fans, IE, 6/25, p.108
Direct current for equipment users, 6/11, p.136
Expansion outside Pennsylvania, high tax, 6/18, p.92
Expansion plans, B, 6/4, p.94
Guillotine replaces Charpy test for for large samples, 2/20, p.132
Heat treat line for aircraft steels: W. J. Hoppe, 5/14, p.124
Machine Tool Electrification Forum, 4/30, p.106
Precipitron, air cleaner, IE, 5/7, p.132
Static switches, IE, 4/30, p.126
Strike ends, 3/19, p.43
Strike loss to plants, 1/30, p.34
Strike loss in wages, 2/13, p.36; 3/19, p.43
Strike recovery, terms differ, 3/26, p.43
TV-color, 2/20, p.60
TV receivers, Loewy design, 3/26, p.80
Technician program, 5/7, p.54

Westmoreland Metal Mfg. Co.:
Black oxide finishes, 1/23, p.72

Wheelabrator Corp.:
Blast tumbler, IE, 5/14, p.161; 5/21, p.140

Wheeler Reflector Co.:
Anniversary, B, 5/7, p.89

Wheeling Corrugating Co.:
Minneapolis branch, B, 4/30, p.88
Moves at Kansas City, B, 3/12, p.120

Wheeling Steel Corp.:
Furnace contract, B, 6/11, p.95
Licenses Canadian galvanizing, 2/27, p.118
Reclaiming plant, B, 4/2, p.90
To move operations of Wheeling factory, 4/2, p.81

White Industries:
Mack a subsidiary, B, 4/9, p.102

White Motor Co.:
Chassis made by Mayer-Pollock, 1/30, p.45
Merger philosophy, Diamond T Motor Car a possibility, 1/9, p.41

Whiting Corp.:
Trackmobile, IE, 5/28, p.138

Wickes Corp.:
See United States Graphite

Willamette Iron & Steel Co.:
St. Lawrence Seaway contract, 3/12, p.111

Willys Motors Inc.:
Jeep Dispatcher, 1/9, p.42

Wilson Inc., Thomas C.:
Tube expander, IE, 2/20, p.158

Winsmith Inc.:
Buys Blaw-Knox facilities, B, 2/13, p.74

Wire Mfg. Co.:
Inconel stacking basket, IE, 1/9, p.85

Wiretex Mfg. Co.:
Inconel baskets, 3/5, p.122

Woehr Machine Co., F. A.:
Roller leveler, IE, 5/21, p.145

Woodside Industries:
Sells power loader div., B, 4/16, p.82

Woodward Iron Co.:
Expands, B, 3/19, p.76
Tax refund suit, 6/4, p.54

Worthington Corp.:
Buys Mason-Neilan Regulator, B, 4/2, p.81
Tips for better weldments, 4/23, p.132
Welder lab, B, 4/23, p.93
Welding manipulator, IE, 2/20, p.152; 6/18, p.202

Wyman-Gordon Co.:
Heavy die forging presses, rating, builders, 1/9, p.74
Installs press, B, 3/26, p.116

Wysong & Miles Co.:
Power bending rolls, IE, 1/2, p.418

X, Y, Z

Yale & Towne Mfg. Co.:
Fork truck future predicted, 4/9, p.77
Industrial trailer, IE, 3/5, p.135
Steel mill trucks, IE, 5/28, p.162

Yardney Electric Corp.:
Silver-cadmium battery cell, ENG, 2/20, p.107

Young Industries, L. A.:
Dry chemical piped to fire, 6/4, p.102

Young Spring & Wire Corp., L. A.:
Anniversary, B, 3/19, p.78
Buys Tracto-Lift, B, 1/9, p.54
Buys Woodside Power Loader, B, 4/16, p.82

Youngstown Industries Inc.:
Continuous strip coating line (awnings, aluminum siding); Rolled-on colors tone up production, 4/30, p.96

Youngstown Mfg. Inc.:
Buys Ford Moulding, B, 6/11, p.98

Youngstown Sheet & Tube Co.:
Blast furnace blown in, Campbell Wks., 3/19, p.46
Continental a division, B, 1/16, p.64
Ingot capacity boost, 3/12, p.77
Expansion, Youngstown area, 4/23, p.59

Youngstown Steel Door Co.:
Expands, B, 5/28, p.96

Zapata Off-Shore Co.:
Scorpion, mobile off-shore drilling platform, 3/26, p.86

Zeller Co. Inc., William F.:
Expands, B, 3/12, p.116

Ziv Steel & Wire Co.:
Enlarges warehouse, B, 2/20, p.102

AUTHOR INDEX

A

Alder, S. M., Minnesota Mining & Mfg. Co., Tape directs the conveyor, 5/28, p.126

B

Bates, James P., Hyster Co. and **C. A. Turner Jr., Selas Corp. of America,** Flame hardening upgrades gears, 2/6, p.120

Brown, Hiram, Solar Aircraft Co., What specifications mean to you, 4/16, p.92

C

Caine, J. B., Magnetic particle inspection: Where should you draw the line? 1/23, p.74

Curtis, Mike, Timken Roller Bearing Co., The precision touch in grinding, 1/23, p.70

D

Dawkins, Stanley A., Consolidated Electrodynamics Corp., Vacuum melting: The inside story, 5/7, p.100

Drever, Horace, Drever Co., Scale-free heating in a direct-fired furnace, 3/5, p.105

Dunham, Bruce M., Sun Oil Co., Simplify your lubricant needs, 3/19, p.94

Dunleavy, F. J., Association of Lift Truck & Portable Elevator Manufacturers, Case for handpower handling, 1/16, p.73

F

Farley, Richard R., General Motors Corp., Design with man in mind, 6/18, p.148

Fitch, L. R., Boeing Aircraft Co., Heat treat line for aircraft steels, 5/14, p.124

Fuhrmeister, H. E., W. M. Parris and H. D. Kessler, Titanium Metals Corp. of America, More heat treatable titanium, 4/23, p.118

G

Garwood, M. F. and F. H. Mason, Chrysler Corp., Autos go heavy on light metals, 1/16, p.82

Gray, Dr. Allen G., technical editor, STEEL, What you . . . can do about metal fatigue, 1/16, p.68

H

Heger, J. J., U. S. Steel Corp., Build corrosion resistance into stainless, 4/9, p.117

Henderson, R. L., Lamp Division, General Electric Co., Shrink fitting gets a boost, 1/30, p.88

Hoppe, W. J., Westinghouse Electric Corp., Heat treat line for aircraft steels, 5/14, p.124

Horvick, Ernest W., American Zinc Institute, Continuous galvanizing hits its stride, 2/6, p.122

J

Jenni, Clyde B., General Steel Castings Corp., Heat treating steel castings, 1/23, p.84

Johnson, Carl E., Acme Chain Corp., Chain parts colored twice as fast, 6/11, p.116

Johnson, P. D., Glidden Co., Choose the right brazing method, 4/16, p.106
New kinks in brazing, 5/21, p.114

K

Kessler, H. D., H. E. Fuhrmeister, W. M. Parris, Titanium Metals Corp. of America, More heat treatable titanium, 4/23, p.118

L

Levy, A. V., Marquardt Aircraft Co., Taming supersonic heat, 4/9, p.112

Lysaght, Vincent E., American Chain & Cable Co. Inc., Hardness testing, 6/25, p.98

Mac

MacConochie, Dr. Arthur F., University of Virginia, Shell forming: Some like it hot, some like it cold, 2/27, p.128

M

Margulies, Dr. Paul H., Food Machinery & Chemical Corp., Plating pit-free, heavy nickel, 1/30, p.98

Mason, F. H. and M. F. Garwood, Chrysler Corp., Autos go heavy on light metals, 1/16, p.82

Muller, Donald C., A. J. Bayer Co., Tape directs the conveyor, 5/28, p.126

Murray, Thomas E., E. F. Houghton & Co., Black finish with a bright future, 1/23, p.72

N

Newitt, John H., Kinetics Corp., Brazing in a vacuum, 6/4, p.107

P

Pace, A. L., X-Ray Dept., General Electric Co., Tests that save, 5/21, p.124

Parris, W. M., H. E. Fuhrmeister, H. D. Kessler, Titanium Metals Corp. of America, More heat treatable titanium, 4/23, p.118

Q

Quillen, Charles W., Ford Motor Co., How tight is tight? 2/27, p.114

R

Raymond Jr., George G., Material Handling Institute Inc., What integrated handling means, 5/28, p.107

S

Sawyer, John W., Bureau of Ships, Navy Department, Comparator specimens assure good finishes, 2/20, p.112

Scalzi, John B., associate professor of structural engineering, Case Institute of Technology, Structural fasteners: Four to choose from, 5/21, p.112

Sheppard, M. K., M. K. Sheppard & Co., Use office engineering: Save money, time, 4/9, p.76

Slack, William G., Crucible Steel Co. of America and **J. T. Zawodni,** Acme Abrasive Co., Nomograph for grinding costs, 2/6, p.118

Sills, R. M., General Electric Co., Temperature control of heat treating furnaces:
1. Definitions, 2/13, p.108
2. Thermocouples, 2/20, p.135
3. Control instruments, 3/26, p.130
4. Control elements, 4/2, p.110
5. Control systems, 4/30, p.112
6. Special systems, 5/7, p.116

Smith, R. C., J. I. Case Tractor Works, Automated furnace with flexibility, 3/19, p.109

Stanton, L. M. Douglas Aircraft Co. Inc., Heat treating superstrength steels, 6/18, p.150

Strassburger, Julius H., National Steel Corp., Oxygen enriches the blast, 6/11, p.120

T

Tappero, Charles C., Colorado Fuel & Iron Corp., Five ways to stretch wire production, 2/6, p.126

Thomson, Richard B. and Arthur B. Wendt, United States Graphite Co., How metallography helps sintering, 5/21, p.110

Turner Jr., C. A., Selas Corp. of America, and **J. P. Bates,** Hyster Co., Flame hardening upgrades gears, 2/6, p.120

W

Wendt, Arthur B., and Richard B. Thomson, United States Graphite Co., How metallography helps sintering, 5/21, p.110

Wier, F. C., Timken Roller Bearing Co., More movement, less investment, more profit, 5/7, p.102

Z

Zawodni, James T., Acme Abrasive Co. and **W. G. Slack,** Crucible Steel Co. of America, Nomograph for grinding costs, 2/6, p.118

STEEL

EDITORIAL INDEX

for

VOLUME 139

July 1 to December 31, 1956

Subject Index 2

Company Index . . . 13

Author Index 25

THE PENTON PUBLISHING COMPANY

Penton Building, Cleveland 13, Ohio

SUBJECT INDEX

A

Abrasives:
Abrasive wheel sales, 12/24, p.37
Wet abrasive belt surfacer, 8/13, p.115
What's new in coated abrasives (machinery), 11/12, p.134

Absenteeism:
How to cut absenteesim, point system, 8/27, p.58

Accidents:
Industry rate, 7/9, p.47

Accounts:
Check small accounts' cost, 10/15, p.80

Adhesives:
Structurals adhesives bond (aircraft), 12/17, p.85
Structurals-bond test, TO, 12/31, p.57

Africa:
West Coast mineral resources, 9/10, p.106

Air:
The plant that outlaws air (inert gas pilot plant), 10/22, p.79

Air Cleaning:
Trion licenses M-H for electronic equipment, 12/3, p.85

Air Compressor Research Council:
Elects, B, 9/24, p.101

Air Compressors: See Compressed Air

Air Conditioning:
Air conditioning, industry report, 7/19, p.76 and 12/31, p.37
Airtemp sales, 9/3, p.56
Sales outlook (Carrier), 12/24, p.27
Sales outlook (Trane), 8/20, p.79

Aircraft:
Aircraft sales: Feast, not famine, 11/26, p.57
Aircraft machining conference, 11/19, p.147
CAA airway controls, 7/23, p.44
"Flying saucer" disc, radar antenna, 10/1, p.115
Stainless in aircraft design: Austenitic types, 11/5, p.142; Martensitic types, 11/12, p.152
Vertical take-off for Army cargo, 10/29, p.86
See Atomic
See Forming, Bending

Air Force:
Budget needs, 8/20, p.80
Machine tool contracts, numerical control systems, 8/20, p.130
New material need, 10/1, p.120
Nuclear lab. Ga., B, 12/3, p.112
Surplus disposal program, 10/1, p.117

Allotments: See BDSA, ODM

Alloy Casting Institute:
Elects, B, 7/9, p.82

Alloys:
Aluminum bronze alloy (Superston 40) contains 12% manganese, 11/12, p.147
Cashing in on rare metals (columbium, tantalum etc.—Shield-alloy), 10/22, p.49
Copper alloy forgings-hot pressed, what they can do, 12/31, p.58
High temp. alloy, Westinghouse lab, 9/24, p.115
High temp. for jets (see Stainless)
Iron-aluminum alloys, mechanical properties, 10/8, p.110
Molybdenum (see)
Silver-magnesium-nickel, hardenable, 8/13, p.120
Special alloy steels, Metal Selector, 10/1, p.156
Stainless steel (see)
Superalloy (Nivco) for 1200° F, for steam turbine blades, 7/16, p.138
Superalloys cold forged for turbine blades, 12/3, p.126
T-1 high yield-strength, U.S. Steel, 7/16, p.193
Titanium alloys for defense, TO, 8/13, p.99
Tungsten base alloys, TO, 10/29, p.121
Vacuum melt wrought alloys, producers, 12/31, p.32
What's new in metals (ASM papers), 10/8, p.107

Aluminum:
Aluminum in modern architecture, 11/26, p.60
Aluminum rod upgrades killed steel, 9/24, p.124
Aluminum secures future (U.S.-Canada capacity), 12/31, p.27
Aluminum trucks, TO, 8/6, p.109; 12/31, p.57
Auto use:
  Aluminum, stainless gain, 10/29, p.93
  Research looks at future, 7/2, p.47
Chart: Where aluminum goes (mill products), 11/5, p.69
Chart: Where aluminum castings go, 11/12, p.82
Extruding metal where it's needed (stepped aluminum), 10/22, p.95
Industry forecast, 11/12, p.74
Machining aluminum on the automatics, 10/29, p.134
Porcelain enameling put on aluminum foil, machines, 12/3, p.142
Wire coating, oil tempering, 12/3, p.128
Wire coated, TO, 12/31, p.57
See Production

American Die Casting Institute Inc.:
Elects, 9/24, p.101; 12/17, p.82

American Electroplaters' Society:
More jobs for plating, report, 7/16, p.136

American Foundrymen's Society:
New York-New Jersey chairman, 7/30, p.88
Rochester elects, 7/2, p.63

American Gear Manufacturers' Assn.:
Meeting, gear classification report, 11/5, p.71

American Institute of Mining, Metallurgical & Petroleum Engineers Inc.:
Elects, B, 12/3, p.114

American Institute of Steel Construction Inc.:
Elects, B, 11/19, p.138
Meeting, 11/5, p.67
Structural steel contracts, 11/12, p.74

American Iron & Steel Institute:
Companies operating in steel strike, chart, 7/16, p.82
Convention reports (Chicago):
  Hydrogen embrittlement of steel, 11/12, p.138
  More iron without more furnaces (efficient use of blast furnaces), 11/19, p.150
Convention reports (Cleveland):
  Program, paper previewed, 9/17, p.144 and p.154
  No rest for steelmaking (greater productivity with present facilities), 10/8, p.102
  Steelmen speak on taxes, expansion, 10/1, p.113
Open-hearths, study of 29 firms, 11/19, p.93
Payroll, 1st 6 mos., 9/10, p.94
Sintering machines scheduled, 10/8, p.73
Tool steel shipments, 12/31, p.78

American Lithium Institute Inc.:
Formed, B, 12/3, p.114

American Machine Tool Distributors' Assn.:
Elects, B, 11/5, p.102

American Management Assn.:
Elects, B, 10/8, p.90

Engineers-scientists salaries, survey, 11/5, p.70
Personnel men challenged, 9/24, p.70
Salesmen earnings, 9/17, p.97
Small business seminar, 11/19, p.110
Supervisors pay rate differentials, 12/10, p.101

American Smelting & Refining Co.:
Offers pellet lead, B, 11/5, p.93

American Society for Metals:
Elects, B, 8/6, p.106
Metal Congress papers: What's new in metals, 10/8, p.107
Moves headquarters, B, 9/24, p.98

American Society for Testing Materials:
Casting defects, reference photos published, TO, 12/24, p.63
Stainless 200-type reported, 7/9, p.94

American Society of Civil Engineers:
Elects, B, 10/8, p.90

American Society of Industrial Designers:
Elects, B, 10/15, p.106

American Society of Mechanical Engineers:
Nominates president, B, 7/16, p.117

American Society of Metals:
ASM papers, what's new in metals, 10/8, p.107

American Society of Safety Engineers:
Elects, B, 11/5, p.102

American Society of Tool Engineers:
Reserve status of men, 10/22, p.47

American Standards Assn.:
Elects, 11/12, p.115
Nuclear Standards chairman, 10/8, p.90

American Steel Warehouse Assn.:
Booklet: "Escaping from the rising cost of possession, 8/20, p.77
Membership gain, 12/24, p.33
Warehouse steel product mix compared—1956 and 1971, 12/24, p.34

Amortization:
5-year tax foreseen, 9/3, p.39 and p.52
AISE discusses taxes, expansion aid, 10/1, p.113
Armco Steel request, 10/29, p.74
Freight car awards, 7/2, p.37
J&L shelved for study (Houston tubing mill), 8/20, p.67
National Tube request, 8/27, p.42
ODM write-offs, 7/23, p.49; 8/27, p.53; 10/8, p.73; 11/12, p.91; 11/19, p.103
Plant dispersal, tax outlook, 12/24, p.40
Steel requests, 9/3, p.39; 9/10, p.94; 9/17, p.85; 9/24, p.68; 12/24, p.35
Steel: Fast tax score card (chart), 10/22, p.51; file for more aid, 12/3, p.83
Steel tax postponements, 10/8, p.55; 10/29, p.86
Steel tax turned down, 12/24, p.21
Steel plates and structurals, study, 7/23, p.31

Annual Reports:
Employee communications through annual reports, 9/10, p.102
See Stockholders

Anodizing:
Truck coloring, 7/30, p.44

Antitrust: See Government

Appliances:
Industry report, housewares, 10/8, p.72
Industry report, '57 outlook, 12/17, p.53
Sales outlook, *Chicago Tribune* survey, 12/17, p.47

Apprentices:
Trainee pools, 9/17, p.93

Area Development:
Industrial parks planning, 7/23, p.48
Planning a suburban plant, how to choose a site, 8/20, p.84
New York, upper state, 9/17, p.85
Washington as industrial center, 9/10, p.106

Armed Forces:
Civic group conferences, 9/3, p.48
Standardization program, 8/27, p.54

Armour Research Foundation:
See Illinois Institute of Tech.

Associated Industries of Cleveland:
Average wage increase—'56, 12/10, p.91
Average wage settlements, Cleveland area, 7/2, p.39; 9/3, p.39; 9/10, p.100
Industrial relations conference: Labor-management report, 10/15, p.70
Skilled labor survey, 7/16, p.92

Association of Iron & Steel Engineers:
Cleveland expo: Taxes, expansion issues, 10/1, p.113
Elects, B, 10/8, p.90

Atomic Energy:
AMF builds reactor in Germany, 7/2, p.45
Argonne National Lab: Rolling mill processes nuclear materials, 12/3, p.148
Armour research reactor: Private atom makes bow, 7/9, p.57
Atomic business . . . how you can get it, 11/19, p.143
Atomic labs, Du Pont and Westinghouse, 9/3, p.51
Atomic planes closer than you think, 8/20, p.116
Atomic plant at Monroe, Mich., attacked, 10/29, p.74
Atomic plant, Shippingport, Pa., 11/5, p.72
Atomic plants, cost estimates, 7/9, p.47
Atomic reactors in U.S.—map, 10/29, p.91
Battelle: Open for research (pool-type reactor), 11/12, p.136
Carbon steel reactor, TO, 12/24, p.63
Combustion Eng. contract:
  Builds naval reactor plant, 8/27, p.59
  Fabricates giant reactor vessel, 10/15, p.135
Commonwealth Edison Dresden plant, 8/27, p.53
English plant, Calder Hall site, 11/5, p.71
Industrial Reactor Laboratories formed by ten concerns, 10/8, p.89
Industry-civilian use, 8/27, p.41
Industry use next 4 years, 12/17, p.48
Merchant ship reactor contract, 10/8, p.73; 10/22, p.52; 11/5, p.72
Steel for atomic reactors, TO, 7/2, p.65
Zirconium supplies, 7/9, p.58

Atomic Energy Commission:
AEC information declassified, 12/31, p.34
Booklet: How to get atomic business, 11/19, p.142
Babcock & Wilcox licensed, 10/1, p.108
Beryllium contract, 9/24, p.71
Nuclear specialists trained, 12/24, p.40
Power sources forecast, 7/2, p.28

Strauss' atomic power plans, 12/31, p.34
Uranium supplier sought, 7/16, p.76

Automation:
Automatic assembly is next, 9/10, p.140
Automation—Bogeyman or Bonanza? (Management Series), 10/15, p.109
Automatic assembles vacuum valve parts, 12/3, p.120
Automatic furnace is versatile, 11/19, p.163
Automation handles 30-ft parts (Reed Roller Bit), 12/10, p.146
Automatic mix for molding sand, 7/16, p.145
Chrysler automatic transmission plant, 11/26, p.71
Foreign builders show automation, 8/6, p.128
International Harvester conference "Progress Through Automation," 10/8, p.66
Offices go for automation, 12/3, p.84
Steel plate heat treating line, 11/26, p.90
What automation demands, Michigan Tool president reports, 7/23, p.43

Automotive:
4-door sedans—what you get for your money, (chart), 11/19, p.114
1957 models ready, 8/27, p.61
1957 models, Detroit editor reports, 11/12, p.94
A picture of trouble: Engineers study parts failure by photography, 7/16, p.95
Aluminum, stainless consumption in average '57 auto, 10/29, p.93
Auto parts suppliers aided by diversification, 9/10, p.93
Auto production, Chevvy leads, 7/23, p.52
Auto sales, 2nd half, (chart), 7/16, p.85
Auto sales, 4th quarter outlook, 9/24, p.79
Auto sales—'57, a conservative view, 11/12, p.93
Auto Show, 12/17, p.67; scheduled, 7/30, p.64
Battery replacement sales, 8/20, p.74
Behind the scenes with Willys: Consolidates body paint line, other plans, 7/23, p.51
Cermets for auto brakes, 9/17, p.105
Copper use, survey, 11/26, p.62
Dealer inventories, 7/2, p.27; 9/10, p.93
Defense contracts, 7/16, p.96
Energy driving tests, 7/2, p.48
Ford analyst views future, 9/3, p.59
Foreign cars, 10/8, p.75
Fuel injection on '58 models? 7/30, p.63; 11/19, p.113
Fuel injection, AMC and Pontiac, 12/10, p.112
Fuel injection, Marvel-Schebler, 9/24, p.80
Fuel injection, Auto Show discussion, 12/17, p.67
German cars, production, 9/17, p.103
German market for GM, 12/10, p.111
Growth potential of auto industry (chart), 7/2, p.47
Haulaway trailer business, 10/15, p.83
Magnesium wheels, 7/9, p.68
Mercedes-Benz distributors, 10/8, p.76
Piston noise study, 8/6, p.92
Plating standards, 7/9, p.67
Pontiac's IBM tool control system, 10/1, p.127
Research examines metals for future, 7/2, p.47
Roof styling, 11/5, p.79
Rubber bellows air springs, 7/2, p.48
Safety tests, crashproof car, 10/1, p.128
Safety, congressional probe, 9/10 p.113
Sculptured steel sets trend, 8/13, p.63
Stainless steel radiators, 10/29, p.94
Stainless steel top, Cadillac, 12/3, p.93
Station wagon sales, 8/6, p.91
Studebaker-Packard, new management under Curtiss-Wright, 8/20, p.87
Styling makes the sale, 10/15, p.79
Styling progress since Model-A (pix), 8/13, p.63
Suspension system for '57, 11/19, p.113
Tires, dual tread, 8/13, p.64
Tires, Captive-Air, safety, 10/8, p.76
Transmission gear test, 7/23, p.52
Transmission plant automatic at Chrysler, 11/26, p.71
Truck maintenance sacrificed for styling, 10/15, p.84
Truck sales, 12/24, p.47
Turbines, free piston-gas debate, 10/22, p.60
Unit body construction discussed, 12/17, p.67
Wheels 14-in. and smaller cause brake problems, 9/3, p.57
Zinc diecasting peak, 12/31, p.42

B

Babbitt:
Blisters in babbitt, 10/8, p.95

Bars:
H-R bars, supply, 10/22, p.119
Rail steel bars, demand, 11/12, p.179

Battelle Memorial Institute:
Co-operative research, report, 7/16, p.76
Gases in metals: Manley W. Mallett, 10/8, p.95
Open for research: Pool-type research reactor, 11/12, p.136
Refractories, vacuum materials, 12/17, p.90
Rhenium in electron tubes, study, TO, 11/26, p.89
Titanium extruders, 12/10, p.143

Batteries:
Auto battery replacement sales, 8/20, p.74
Gas battery (buoys and remote stations), TO, 9/10, p.139
Solar silicon batteries, TO, 7/30, p.91

Bauxite:
Venezuelan deposits, 7/30, p.44

Bearings, Bushings:
Blisters in babbitted thrust bearing shoes, 10/8, p.95
Plastic bearings on combat vehicle turrets, 7/2, p.65

Bell Telephone Laboratories:
Communications research, fatigue study, 7/30, p.120

Bending: See Forming, Bending

Beneficiation:
Kaiser Eagle Mt. plant, 7/16, p.140

Beryllium:
AEC contract, $23 million, 9/24, p.71

Bituminous Coal Institute:
Fuel consumption by industry, 11/12, p.90
Officers, B, 10/1, p.148

Blast Furnace & Coke Assn.:
Chicago district elects, 7/16, p.117

Blast Furnaces:
AISE (papers):
Automatic split-wind blowing, 9/17, p.154
High top pressure, 9/17, p.191
Tuyere air proportioning, 9/17, p.154
Lower ash for better coke, 7/16, p.140
More iron without more furnaces: Part 1, 11/19, p.150; Part 2, 11/26, p.98

Bolts: See Fasteners

Bonding:
Duolock, rubber-to-metal, TO, 11/12, p.129
Epoxy-rubber compound for strain gages, TO, 10/15, p.119
Magnetic bond for dissimilar metals, TO, 7/30, p.91

Books, Booklets:
ASTM standards on light metals and alloys, 7/9, p.122
Atomic business, how to get it, 11/19, p.142
Chromium, chemistry of, 8/20, p.148
Pallet patterns, 9/3, p.77 and 118
Resistance welding, 8/20, p.148
Welded steel tubing handbook, 8/20, p.148

Brass:
Fine grained brass for deeper draws (continuous anneal), 12/24, p.66

Brazing:
Braze welding aluminum to copper (electric joints), 9/24, p.122
Brazing series (modern):
The why of flux, 7/2, p.80
Fluxing techniques, 7/9, p.99
How to braze stainless, 9/3, p.94; 9/10, p. 158
Gas-fired machine brazing, 10/29, p.124
Dip brazed parts take the heat (Glenn Martin), 10/8, p.114

Broaches: See Machine Tools

Bronze:
New bronze alloy with 12% manganese (Superston 40), 11/12, p.147

Brushes, Brushing:
Power brushing, industry report, 11/19, p.111

Bureau of National Affairs Inc.:
Wage increases surveyed, 7/23, p.38

Business:
1956 quarterly report (GNP-production index), 9/3, p.45
1957 outlook (Chamber of Commerce), 12/17, p.56
Abrasive wheels, 12/24, p.37
Air conditioners, 12/31, p.37
Aircraft, 11/26, p.57
Appliances, 10/8, p.72; 12/17, p.53
Auto sales, 2nd half, 7/16, p.85
Batteries-autos, replacement sales, 8/20, p.74
Business failures (chart), 9/10, p.110
Business firms, increase, 8/27, p.45
Components, 7/2, p.111
Construction forecast, 11/5, p.65
Consumer durables, 9/3, p.46
Consumer price index, 12/3, p.73
Conveyor equipment, 11/15, p.76
Copper castings, 11/26, p.61
Drop forgers, 10/8, p.135
Drums, 12/3, p.82
Economy:
Economist at Ford views future, 9/3, p.59
Eight yardsticks for profit margins, 10/1, p.117
Inflation (executive tax on salary), 9/3, p.40
Inflation shown in buying power, 10/1, p.107
Tight money to stay, 12/10, p.98
Electronics, 7/9, p.48; 11/12, p.79
Embossing sales, 8/27, p.50
Extrusion equipment, 7/23, p.42
Extrusions — nonferrous, 12/10, p.102
Farm machinery, 8/20, p.78; 10/8, p.55
Fasteners, 9/3, p.56
Fencing, 7/16, p.87
Foreign investments, 9/3, p.48
Foundry equipment, 10/15, p.71
Fractional motor sales, 8/6, p.81
Gas-industrial consumption, 7/2, p.44
Gas-industrial equipment, 10/1, p.124
Gray iron, 10/1, p.118
Guided missiles, 7/9, p.63
Hardware, 9/17, p.93
Haulaway trailers, 10/15, p.83
Honeycomb sales, 7/2, p.36
House trailers, 7/30, p.54
Housing, 12/10, p. 97
Integral motors, 9/10, p.103
Investment castings, 10/29, p.83
Job Shops, 12/3, p.79
Machine tools (special tools), 9/24, p.76
Machine tool orders, midyear forecast, 8/6, p.128
Machine tool shipments, 7/2, p.33; 10/29, p.74; 12/3, p.73; 12/10, p.98
Magnesium markets, uses, 12/3, p.90
Material handling equipment, 7/23, p.32; 8/20, p.67
Metal collapsible tubes, 9/17, p.74
Metal office furniture, 9/10, p.104
Mill equipment, 9/3, p.49
Office automation, 12/3, p.84
Oil field equipment, 7/9, p. 48
Outboard motors, 10/1, p.108; 11/5, p.60
Overtime index, business forecast, 7/9, p.60
Packaging, 9/24, p.65
Photographic equipment, 7/9, p.48
Powder metallurgy, 7/9, p.139
Power brushing, 11/19, p.111
Precision stamping, 8/27, p.51
Purchasing agents (Chicago) report, 7/16, p.75
Purchasing agents' forecast, 12/31, p.21
Rollmakers, 8/20, p.75
Rubber, industrial sales, 10/29, p.90
Scientific apparatus, 7/9, p.59
Scrap handling equipment, 9/10, p.101
Screw machine products, '56 forecast, 7/30, p.43
Silicon steel expansion, 12/3, p.173
Special machinery, 7/9, p.105
Station wagon sales, 8/6, p.91
Steel forgings, 10/8, p. 135
Steel piling, 12/10, p.205
Steel strapping, 11/19, p.103
Tool steel, 12/31, p.78
Toys, 9/10, p.109
Ultrasonics, 10/1, p.116
Vacuum melting, 12/31, p.32
Vending machines, in-plant food service, 12/24, p.43
Weldments, 11/5, p.77
Wire industry, 9/10, p.209
Zinc markets, 11/5, p.68

Business & Defense Services Adm.:
Adm. Honeywell to resign, 9/10, p.106
Appointments:
Allison, 12/31, p.34
Berring, 1/24, p.40
Favorite, 9/10, p.106
Ford, 9/24, p.72
George, 9/17, p.98
Greene, 7/30, p.56
Jenni, 9/3, p.52
Jones, 10/1, p.120
McCoy, new administrator, 10/8, p.68
Nissen, 8/6, p.84
Roach, 7/23, p.44
Smith, Jack, 12/17, p.60
Vorzimere, 10/15, p.76
Aluminum set-asides, 10/29, p.74
Copper goals closed, 10/1, p.107
Jet engine material restrictions end, 7/2, p.37; 10/22, p.52
Metalworking potential surveyed, 10/29, p.86
Nickel alloy controls begin, 7/2, p.27
Nickel program may cover "unusual development costs," 8/6, p.72
Nickel anodes freed, 8/27, p.102
Priorities sought, 9/17, p.98
Recruiting executives, 7/23, p.44
Steel distribution check, 8/13, p.56
Steel marking code committee, 7/23, p.41
Steel set-asides, mill level, "A" products, 4th quarter, 7/30, p.43
Steel set-asides, 3rd quarter, 7/16, p.75
Warehouse steel freeze order, 7/16, p.83
Warehouse steel freeze order modified, 7/23, p.31; and 7/30, p.52; controls may be lifted, 8/6, p.84
World ingot production figures, 10/22, p.57

Business Machines: See Office Machines

C

Canada:
Auto sales, 8/20, p.68
Dominion Bridge expanison, 10/22, p.49
GNP record, 8/6, p.72
Pipe mills scheduled, 12/10, p.99
Prairie Pipe Mfg. formed, 10/9, p.105
Water pipe system, Ont., 8/27, p.53
West Coast smelter plans, 11/19, p.94

Carbon Dioxide:
CO_2 speeds coremaking, 8/6, p.111
Weld faster with CO_2, shielded arc, 10/15, p.126
Weld fast with CO_2, TO, 10/22, p.77

Capacity:
Aluminum, 12/31, p.27
How hot-rolling capacities have changed (1954-56), 9/27, p.136
Light metals, 10/15, p.64

Steel ingot, firms adding, 9/17, p.134
Steel ingot, free world, 10/22, p.57
Structurals, 9/17, p.136 and 227
Uranium, 12/31, p.31

Capital Expenditures:
Chemical firms, 11/5, p.60
European expenditures, 11/12, p.73
Maintenance engineers surveyed on equipment purchases, 7/2, p.28
Steel industry, replacement program, 12/31, p.22
New plant and equipment:
Chart—metalworking (1956-53), 9/17, p.91
Chart—all industries, 1st quarters (1957-55), 12/17, p.59
Manufacturing firms since 1946, 12/3, p.74
Oil-gas industry, 10/29, p.73

Capital Financing:
Capital investment (CTA report): More risk capital needed, 9/17, p.95
How to plan, 8/6, p.88
Railroad equipment financing, 8/6, p.89

Carbides:
See Tools (Cutting)

Castings:
Aluminum casting shipments, where they go, 11/12, p.82
Automatic mix for molding sand, 7/16, p.145
Beryllium-Copper dies, 7/30, p.116
Big castings build a business (Chambersburg), 7/30, p.144
CO_2 speeds coremaking, 8/6, p.111
Castings porosity (gases in metals), 10/8, p.95
Centrifugal casting moves ahead (water-cooled molds), 12/24, p.72
Continuous casting: Norman Goss, 9/17, p.191
Continuous casting (control and synchronization), 10/22, p.86
Continously cast strip (Hazelett process), 8/27, p.83
Copper castings, industry report, 11/26, p.61
Gray iron castings: Survey shows buyers stress quality, 11/12, p.83
Induction stirrers upgrade cast steel, 9/24, p.132
Investment casters eye the vacuum: Cost comparison for air, argon gas and a vacuum, 7/9, p.104
Investment casters line vacuum furnaces — refractories used, 12/17, p.90
Investment castings, markets, 10/29, p.83
Nodular iron process, 10/8, p.110; 10/22, p.83
Shell molding machine for 34 in. square castings, 7/2, p.76
Steel casting markets, 10/8, p.64
Turbine welding, one-piece castings, 12/10, p.182
See Diecasting

Ceramics:
Cermets for auto brakes, 9/17, p.105
See Tools (Cutting)

Charts, Tables:
1957 sedans, what you get for your money, 11/19, p.114
Business failures, 9/10, p.110
Components, survey, 7/2, p.111
Construction forecast, 11/5, p.65
Finished steel products (June), 9/17, p.233
Guided missiles info, 7/9, p.63
Iron ore stocks, 10/29, p.159
Labor settlements, Cleveland area, 9/10, p.99
Lead, where it goes (uses), 9/17, p.94
Metalworking price rise, 8/27, p.47
Metalworking, steelmakers 1st half earnings, 8/6, p.83
New plant, equipment spending, 9/17, p.91; 12/17, p.59
Plating chart control, 7/23, p.90
Scrap exports, 11/26, p.141
Small business problems, 10 firms, 11/19, p.110
Stainless steel, who uses (market classifications), 8/13, p.139
Stainless steel markets (guide), 11/26, p.63
Steel companies expanding, 9/17, p.134
Steel companies expansions, fast tax score card, 10/22, p.51
Steel companies operating through strike, 7/16, p.82
Steel earnings, 3rd quarter, 10/29, p.85; 1st half, 8/6, p.83
Steel ingots (see Production)
Steel product shipments, July-Aug., 10/29, p.165
Steel strike platform, companies and union, 7/9, p.54
Steel wage scale—1956-57-58, 8/6, p.78
Uranium mill capacities, 12/31, p.31

Chem-Milling: See Machining

Chicago:
Industrial plant expansions, 12/3, p.85
Rezoning protest, 12/31, p.22

Cleaning, Blasting:
How steam cleaning speeds maintenance, 12/10, p.148
Ultrasonic cleaning (see Ultrasonics)

Closed-Circuit: See Radio, TV

Coal:
Kaiser's Sunnyside mine, 7/16, p.140
Soft coal production forecast, 10/15, p.63

Coatings: See Finishes

Colleges:
Engineers-scientists need, 12/10, p.101
Industry and college: Partners in development, 11/12, p.119

Color:
Steel marking codes, 7/23, p.41

Columbium-Tantalum:
Cashing in on rare metals (Shield-alloy Corp.), 10/22, p.48
Ferrocolumbium supplies, 9/3, p.39
GSA purchase price, 10/22, p.40

Communication:
Capital equipment, new plants, 7/9, p.48
Employees, better communications with annual report, 9/10, p.102
Employee motivation through communications, 9/24, p.109
Production tech. (see Radio, TV)

Components:
Highway sales, 10/29, p.81
Industrial components, quarterly survey, 7/2, p.111; 10/1, p.277
Prices react to steel's hike (chart), 8/27, p.47

Compressed Air:
J&L's air system, 12/10, p.150

Computers: See Counters, Computers

Conferences:
Civic groups meet with Armed Forces Industrial College, 9/3, p.48

Construction:
1956 forecast, 9/24, p.59
1957 forecast: Construction sets the pace (chart), 11/5, p.63
Aluminum in modern architecture, 11/26, p.60
Construction statistics, BDSA, 10/8, p.68
Inland office building: This building is welded, 12/24, p.64
Phoenix colliseum, trussless steel roof, 8/27, p.75
Sewerage construction awards, 7/16, p.83
Stainless curtain walls, U.S. Steel office bldg., 10/29, p.82; 12/3, p.154
Western boom, 11/5, p.70
See Floors

Construction Machinery:
Highway program sales, 10/29, p.80

Consumer Durables:
Industry report: Cost-price pinch tightens, 9/3, p.46

Consumption:
Aluminum—stainless by auto industry, 10/29, p.93
Fuels, industry use, 11/12, p.90
Iron ore, 10/29, p.159; 12/10, p.211
Lead, where it goes, 9/17, p.94
Zinc: Ten-year picture, 11/5, p.68

Containers: See Packaging

Controls:
See Production Controls
See Steel Mill Controls
See Toolrooms

Controllers Institute of America:
Yoder elected v.p., 7/2, p.63

Conversion Chart: See Porcelain Enameling

Coolants: See Lubrication

Cooling:
Annealing with superfast cooling option, 12/3, p.150
Tunnel cooling whips space problem (Reeves Steel), 7/23, p.85

Conveyor Equipment Manufacturers Assn.:
Elects, B, 12/10, p.136

Copper:
Copper castings, industry report, 11/26, p.61
Sponsors for Southern Peru Copper Corp., 8/27, p.52

Copper & Brass Research Assn.:
Auto industry survey: Copper holds its own, 11/26, p.62
What copper alloy forgings can do: A. I. Heim, 12/31, p.58

Cornell University:
Tests for crashproof car, 10/1, p.128

Corrosion:
Stainless 200-series, corrosion properties, 7/9, p.96

Cost Cutting:
Consumer durables, 9/3, p.47

Cost of Living Index:
Consumer price index figures, 12/3, p.73

Council for Technological Advancement:
Capital investments, 9/17, p.95

Council of Profit Sharing Industries:
Meeting report, 11/19, p.105

Counters, Computers:
Carboloy computer aids machining expanding shell, 8/13, p.118
Computers speed design (Reliance Electric), 12/31, p.61
Data-processing systems forecast, 9/24, p.59
IBM production recording system—(APR), 9/17, p.97
IBM tool control system—Pontiac, 10/1, p.127
Westinghouse-Sharon transformer plant: Computer makes magic, 11/5, p.126

Curtain Walls: See Construction

Cutting, Shearing:
Cutting table: Oxyacetylene torch cuts heavy plate and table rails, 9/10, p.168
Tubing cut by magnetized transfer rolls, 12/17, p.94

D

Decentralization:
Trend to decentralize buying, 7/2, p.39

Defense:
A-bomb—Operation Alert, scheduled, 9/10, p.106
Defense spending stepped up, 12/24, p.40
Fiscal funds, 7/9, p.60
See BDSA
See ODM

Defense Contracts:
Aircraft, 11/26, p.57
Army trucks, 7/16, p.96
Contractor reports asked, 7/2, p.40
Contractor payments faster, 12/3, p.73
Guided Missiles (see)
Small business share, 10/1, p.107
Small business subcontracts urged, 12/10, p.103
Tech data guard needed, 7/2, p.34

Defense Materials System: See BDSA

Depreciation:
Better methods for profit, MAPI policies, 12/31, p.33
Self-help for depreciation, 11/19, p.99

Descaling:
Descaling titanium sheet, oxidized baths, 12/31, p.62

Diecasting:
AC Spark Plug hot chamber machines: Boost for magnesium diecasting, 8/13, p.102
Air filter diecast, 8/20, p.133
Aluminum valve, die-cast zinc core, 11/5, p.135
Auto peak for zinc diecasting, 12/31, p.42
Beryllium-copper dies, 7/30, p.116
Diecast magnesium motor stators, less weight, 7/16, p.158
Doehler-Jarvis operation, 7/30, p.77
Job shop diecaster outlook, 9/17, p.86

Die Forging:
Split die forging solves a problem, 11/26, p.94

Dies: See Tools & Dies

Dip Brazing: See Brazing

Distribution:
See Industrial Distributors
See Warehousing, Distribution

Diversification:
U.S. Industries (jets and missiles), 9/10, p.105

Drawing:
Fine grained brass for deeper draws (brass strip vs annealed), 12/24, p.66
Lubrication in drawing (see Lubrication)

Dredging:
Delaware river, upper channel, 9/3, p.56

Drop Forging:
Drop forgers, industry report, 10/8, p.135

Drop Forging Assn.:
Elects, B, 7/23, p.73

Drums:
Industry report, 12/3, p.82

Dust Collectors & Filters:
Air filter diecast, 8/20, p.133

E

Earnings: See Financial

Earthmoving Equipment:
Highway machinery, 10/29, p.80

Economy: See Business

Editorials:
1956: A good year, 12/31, p.25
After the Election: What? 11/12, p.77
Building America (construction), 11/5, p.63
Chart Your Growth, 10/8, p.59
Competition at Work, 12/10, p.95
Creative Competition, 8/20, p.71
Dynamic Steel (industry growth), 9/17, p.89
Fabulous Metalworking! (Metal Selector), 10/1, p.111
For Labor Statesmanship (higher standards), 7/2, p.31
Forcing Productivity, 7/9, p.51
Get Out the Vote! 9/24, p.63
Honesty in Politics, 10/22, p.43
Ingredients for Success (Randall's book), 11/19, p.97
Is Bigness Bad? (political attack on big business), 8/27, p.45
Labor: New fixed cost, 7/16, p.79
Labor's New Day, 9/3, p.43
Moderation in Steel (price schedules), 8/13, p.47
Our Business Abroad, 11/26, p.55
Preview of '57, 9/10, p.97
Problems of Prosperity, 12/17, p.51

Stop Economic Waste, 7/30, p.47
The Promising Farm Market, 10/15, p.67
What Labor Wants (AFL-CIO book), 12/3, p.77
Why I Will Vote, 10/29, p.77

Electrical Equipment:
1976 output forecast, 12/3, p.74
Joints braze welded, aluminum to copper, 9/24, p.122
U.S. buying abroad criticized, 7/2, p.35

Electrochemical Society:
Meeting: Cheaper ore for titanium (report), 10/29, p.128

Electrodes:
Lesson in electrodes (electric furnace use), 7/23, p.86 and forecast, 8/27, p.117

Electrolysis:
Electrolytic marking: It's versatile, 10/15, p.139

Electronics:
Continuous casting controls, 10/22, p.86
Numerical control for jig borer, 7/23, p.82
Photoelectric cells speed mill production, 12/31, p.64
Sales, 7/9, p.48; 8/27, p.41; 11/12, p.79
Tape control speeds riveting, 11/26, p.93

Electroplating, Plating:
Aluminum plating, TO, 7/2, p.65
Auto plating standards, 7/9, p.67
Electric heat for plating baths, 12/10, p.170
More jobs for plating (AES report), level, brush plating, nickel - chromium coats, 7/16, p.136
Plating developments, TO, 7/2, p.65
Quality control charts plating savings, 7/23, p.90

Embossing:
Nameplates, sales, 8/27, p.50

Employee Relations:
Annual reports further communications, 9/10, p.102
Motivation through communications, 9/24, p.109

Employment, Unemployment:
Auto employment, 7/2, p.48
Employment-earnings-Nov., 12/17, p.47
European Community studies technological unemployment, 10/8, p.67
GM employment-payrolls, 7/30, p.64
New England shortage, 12/10, p.91

Engineers:
Cross Co. training, 7/23, p.49
Engineers and scientists: Survey shows needs, 10 years, 12/10, p.101
Industry-college co-op (management series), 11/12, p.119
International Steel training, 10/29, p.82
Salary survey, AMA, 11/5, p.70
Search for engineers, 9/17, p.86
Solar Aircraft factory lab: I have enough engineers, 11/12, p.130
Steelmaking challenges the young (graduates sought), 10/15, p.128
Unions grow, 8/13, p.53
Unionized members, 60,000, 12/24, p.27
Women, engineering assts., 12/24, p.28

Engraving:
Pantograph engraving, Bell Aircraft, 11/26, p.115

Europe:
European Community for Coal & Steel: Studies problem of technological unemployment, 10/8, p.67
Steel supplies, 7/16, p.75
West Europe prosperity, 10/29, p.73
See Foreign Outlook

Expansion:
Aluminum, 12/31, p.27
Chicago area industrial plants, 12/3, p.85
Steel industry:
A giant grows, ingot capacity (chart), 9/17, p.134
Fast tax, expansion discussed, 10/1, p.113
Fast tax score card, 10/22, p.51
Fast taxes filed, 12/3, p.83
Steel needs, Bethlehem's Homer estimates, 12/3, p.74
Steel projects, 12/24, p.35
U.S. Steel, Pittsburgh capacity, 12/10, p.92
Washington steel, (facilities, markets), 7/30, p.55
See Plant Expansions

Exports, Imports: See Foreign Trade

Extrusion:
Allegheny Ludlum: Now, tool steel extrusions, 7/9, p.92
Cold extrusion tools up for production, 11/5, p.107
Extrusion equipment markets, 7/23, p.32
Nonferrous extrusions, shipments, 12/10, p.102
Stepped aluminum: Extruding metal where it's needed, 10/22, p.95
Titanium extruders ready for volume business:
Firms, type of work, chart, 12/10, p.142
Titanium billets, new methods, 12/17, p.100

F

Fabrication, Assembly:
Auto exhaust muffler assembly, CO_2 arc shield weld, 10/15, p.126
Automatic assembles vacuum valve parts, 12/3, p.120
Automatic assembly is next, 9/10, p.140
Cadillac stainless steel top, 12/3, p.93
Cutting table, oxyacetylene torches, 9/10, p.168
In-Fab pilot plant (inert gas fabrication) hot works molybdenum, 10/22, p.80
Chrysler: Presses expedite small assemblies, 9/3, p.88
Dodge revamps line, 10/22, p.59
Fabricating giant reactor vessel (Combustion Eng.), 10/15, p.135
GM car bodies flaw technique (stripes), 11/5, p.120
Vertical assembly line, TO, 7/2, p.65

Factory Laboratory:
Solar Aircraft organization, technicians in key spots, 11/12, p.130

Fans, Blowers:
Tunnel cooling on bluing line, Reeves Steel, 7/23, p.84
Vane axial blowers, Armco, TO, 7/16, p.131

Farm Equipment:
Farm machinery sales, 8/20, p.78; 10/8, p.55
Fencing sales, 7/16, p.87
Studs shell corn, 7/9, p.102

Fasteners, Fastening:
Aluminum coatings, TO, 12/3, p.119
Chemical locknut, sealant for threaded fasteners, 8/14, p.104
Fastener imports rise, wood screw monthly average, 8/20, p.153
Fastener sales outlook, 9/3, p.56
Hopper fed automatic screw driver, 12/10, p.185
Net pricing takes hold, 10/15, p.163
Nut-bolts: Put quality into bolt tightening, 11/5, p.123
Riveting aircraft, tape control at Northrop, 11/26, p.93
Why bolts fail (bending stress), 12/3, p.125

Fencing:
Fencing sales report, 7/16, p.87

Financial Analysis:
Capital financing, how to plan, 8/6, p.88
Capital investment, 9/17, p.95
GNP, quarterly figures, 9/3, p.45
Manufacturing earnings, 4th quarter, 10/8, p.55
Metalworking earnings, 1st half, 8/6, p.83
Steel earnings, 1st half, 8/6, p.83; 3rd quarter, 10/29, p.84; strike impact, 11/5, p.59

Finishes, Coatings, Paints:
Aluminum wire coating, oil tempering report, 12/3, p.128
Alzac, electrical fixture finish, TO, 8/27, p.79
Coatings, hot hardness testing, 9/10, p.143
Continuous strip gets tight galvanized coat, 8/6, p.118
Duracron enamel, TO, 11/12, p.129
Gold finish applied to, TO, 11/19, p.141
Gold dip furniture, TO, 12/24, p.63
Molybdenum coat in turbine blade, TO, 7/2, p.65
Photo-sensitive pigment paint, TO, 7/23, p.77
Pontiac double paint priming line, 8/6, p.92
Porcelain enameling aluminum foil (machine), 12/3, p.142
Sprayed aluminum on appliances, TO, 12/24, p.63
Vinyl plastic cold rolled sheets, 9/3, p.103

Finished Steel:
ASWA-Welch estimates warehouse distribution, 12/24, p.34
Base price increases, 8/13, p.49
Shipments, 1st five months, 7/16, p.207
Shipments (June), 9/17, p.233
Steel stocks, 4th quarter outlook, 8/6, p.153

Fire Losses:
1st half-'56, 9/24, p.60

Fire Protection:
Asbestos fireproofing, TO, 12/10, p.141

Flame Plating:
Mandrels flame plated with tungsten carbide, 9/3, p.104

Floors:
Cellular flooring for office buildings, 12/17, p.57
GE Appliance Park, maple butcher blocks, TO, 7/16, p.131
Metal floors, Inland rolling mill, 7/30, p.98

Flux:
Brazing series:
1. The why of flux, properties of, 7/2, p.80
2. Fluxing techniques, methods of applying, 7/9, p.99
Soldering flux, 12/17, p.86

Foreign Aid:
Fairless chairman, citizens committee, 9/17, p.86

Foreign Outlook:
1. Sweden, Italy, 12/10, p.108
2. Britain, France, 12/17, p.64
3. Germany, Benelux, 12/24, p.44
4. World steel trends, 12/31, p.38

Foreign Trade:
Export-Import loans:
1956 loans, 9/24, p.72; 1st half, 10/1, p.120
Austria, 10/8, p.67
Brazil, 8/6, p.84
India—Tata Iron & Steel, 8/13, p.61
Thailand, 10/8, p.67
Thyssen mill equipment, 9/17, p.85 and p.103
Toquepala copper mine, 8/27, p.52
Export licensing requirements eased, 9/24, p.72
Fastener imports, 8/20, p.153
Free trade in Europe (customs union treaty), 10/8, p.56
Importing, a new look (how importers create markets), 11/12, p.89
Iron ore imports, furnace use by '57, 10/22, p.39
Machine tool imports, advice on buying, 10/22, p.92
Nickel scrap controls, 7/2, p.27
Puerto Rico drive for American industry, 8/13, p.61
Puerto Rico markets, 11/12, p.85
Scrap exports, 11/26, p.141
South America, machine tool market, 10/22, p.56
Steel shipments: Export-Import trends shift, 7/30, p.137
Yugoslavia exports steel beams, 8/13, p.44
U.S. investments overseas rises, 9/3, p.48
U.S. investments overseas, 9/17, p.103
U.S. investment shift, Canada to Latin America, 9/24, p.60

Forging:
Alco machining tech: Lead in steel forgings, 8/13, p.100
Allegheny Ludlum tool steel forging press, 9/3, p.103
Cold forging superalloys for turbine blades, 12/3, p.126
Cored forgings: Holes forged in, production ideas, 7/2, p.67; 9/24, p.115
Forging with a twist (close-tolerance brass die), 11/19, p.175
Precision die forging, TO, 12/3, p.119
Split die forging solves a problem, 11/26, p.94
Steel forgings, industry report, 10/8, p.135
Tempering process, aluminum hand forgings, TO, 11/5, p.105
What copper alloy forgings can do (hot pressed), 12/31, p.58

Forming & Bending:
Forming matches mill output: Douglas spar caps formed on Farnham mill, Hufford press, 12/31, p.69
Radial draw forming:
Chrysler: Auto maker takes up draw forming, 10/29, p.132
Douglas Aircraft: Wrap-around eases bending chores, 12/3, p.136
Lockheed Aircraft: Big former for projets, 8/20, p.122
Rubber (compression) forming gains accuracy, Lockheed, 7/30, p.109

Foundries:
Bullard: New plant doubles capacity, 7/2, p.78
Chambersburg Engineering: Big castings build a business, 7/30, p.104
CO_2 coremaking process, 8/6, p.111
Foundry equipment: Foundries mechanize more, 10/15, p.71
GE: Induction stirrers upgrade cast steel, 9/24, p.132
General Steel Castings: Automatic mix for molding sand, 7/16, p.145
Gray Iron Foundries: Customer survey, 11/12, p.83
Nodular graphite produced in cast iron, 10/8, p.110
Nodular iron process, two heats in basic cupola, 10/22, p.83
Skilled workers needed, 8/13, p.44
Steel Founders Assn.: Steel casting shipments, 10/8, p.64
Steel strike preparedness, pig iron supply, 7/9, p.56
See Casting, Castings

France:
1957 outlook, 12/17, p.65

Freight Cars, Freight Rates:
Freight car building bogs down (steel shortages), orders and backlogs, 10/8, p.61
Freight car deliveries, 12/31, p.33
Freight car shortage foreseen, 9/10, p.93
Freight rate increase, Eastern roads, 12/31, p.22
Freight rate increase sought, Eastern roads, 8/20, p.73
Freight rate increase foreseen, East-West, 9/24, p.60
Piggyback:
Industry growth, number of carriers, 10/1, p.114
Rock Island "Convert-a-Frate," 12/3, p.85
Southern Pacific, 8/27, p.42
Southern Pacific flatcar moves steel pipe, 11/12, p.91
Railroads buy cars and equipment, 8/6, p.89

Fringe Benefits: See Labor

Fry & Associates, George:
Selection of executives, study, 12/31, p.30

Fuels:
Consumption by industry of primary fuels, 11/12, p.90
Diesel fuel, residual oil, TO, 8/6, p.109

Energy sources in U.S., gas plays a bigger role, 10/1, p.124
Uranium for heavy water reactor, TO, 12/10, p.141
See Gas

Furnaces, Ovens (Heating, Heat Treating):
AISE papers: Open hearths and electrics, 9/17, p.158
All-basic open hearth, 9/17, p.192
Allegheny Ludlum induction vacuum melting unit, 7/9, p.81
Automatic furnace is versatile (Reliance Electric), 11/19, p.163
Cycle annealing furnace continuously handles forgings, 12/3, p.150
Electric furnace, outlook, 8/27, p.117
Impregnating system, GE transformers, 12/10, p.179
Pipe oven (Okonite) handles hot lead, 7/16, p.155
Republic titanium melt facilities, 8/13, p.51
Suspended (ceiling) radiant ovens, 9/10, p.174
Vacuum annealing furnace for titanium, TO, 11/26, p.89

G

Gages:
Automatic gage controls centerless grinding, 12/10, p.164
Gage block calibration course, 8/6, p.130

Galvanizing:
Continuous strip (J&L) gets tight coat, 8/6, p.118
Capital expansion-industry, 10/29, p.73

Gas:
Gas-fired machine brazing, 10/29, p.124
Gases in metals, 10/8, p.95
Industrial gas consumption, 7/2, p.44
Industrial gas sales, pipeline and facility expansion, 10/1, p.124
Inert gas pilot plant hot works molybdenum, 10/22, p.79
Liquefied natural gas transport by ocean tankers, 12/3, p.74
Specifying industrial gas meters, 12/10, p.183

Gas Plating:
Commonwealth Eng. process, TO, 8/27, p.79

Gears:
AGMA: Gear classification system, 11/5, p.71
Cycle annealing furnace handles forgings in gear production, 12/3, p.150
Gears honed to a whisper, 10/8, p.99
Giving gears a precision touch, 11/5, p.111

GSA: See Stockpiles

Germany:
AMF builds research reactor, 7/2, p.45
Auto sales, 9/17, p.103
GM market, Adam Opel Wks., 12/10, p.111
Ingot production, 9/10, p.94
Thyssen seeks mill equipment, 9/17, p.85 and p.103
West German steel prices, 10/29, p.74

Government:
Airway program, electronic safety, 7/23, p.44
Antitrust:
Antitrust enactment outlook, 11/5, p.72
FTC cases, 7/16, p.88
GM bus mfg., 7/16, p.88
Fruehauf charged, 9/3, p.47
Yale & Towne charge dismissed, 7/23, p.44 and 9/24, p.72
Armed Forces standardization program, 8/27, p.54
Auto safety probe (congressmen), 9/10, p.113
BLS: Steel productivity report, 10/8, p.56
Bureau of Mines research program, 7/30, p.56
CAA: Electronic tube contracts, 10/1, p.120
Commerce Secretary Weeks report, 8/13, p.56
Distressed areas aid, new WPA? 7/9, p.60
Executive reserve need not file financial status, 7/16, p.88
FSB to raise discount rates, 8/20, p.67
Fairless committee, foreign aid, 9/17, p.86
Flood insurance soon, 8/27, p.54
Highway adm.—Tallamy, 10/29, p.73
Highway funds, 7/23, p.44
Highway program survey, 7/9, p.60
Hoover recommendations, number accepted, 10/29, p.86
Hoover recommendations in effect, five areas, 12/3, p.86
Inflation check, 8/13, p.56
Inventors Council seeks inventors, 9/10, p.106
Mergers: SEC seeks pre-merger info for stockholders, 10/15, p.76
Minerals bill pending, 7/2, p.40
NLRB: Overtime index, 7/9, p.60
Nickel loan to private firm, 10/22, p.40
Plant dispersal pushed, 7/9, p.60
Research study, Gen. Brownell, 12/3, p.86
Supreme Court rules on overtime, 12/17, p.48
Surplus property disposal, new approach, 9/24, p.72
Tanker program (see Shipbuilding)
Technical data guard needed, 7/2, p.34
Transportation census, 9/24, p.72
Voting time for employees required by (states), 8/20, p.67
WOCs replaced by consultants, 10/15, p.63

Graphs:
Parker Appliance quality control, 11/26, p.112

Gray Iron:
Industry report, 10/1, p.118
Job shop shipments, (chart), 12/3, p.79

Gray Iron Founders' Society:
Awards, 11/12, p.115
Customer survey: Quality, price, 11/12, p.83
Elects, B, 11/19, p.138

Great Britain:
1957 outlook, 12/17, p.64
Research aids selling (Galloway report), 7/2, p.45
Steel production, 8/13, p.61
Strip mill (Steel, Peech), 9/3, p.73

Grinding, Polishing:
Finish grind with a wet belt (rotors for electric motors ground concentrically), 8/13, p.114
Grinding wheels (see Abrasives)
Optical grinder sales surge, 7/2, p.28 and p.33
What's new in coated abrasives machinery (grinders), 11/12, p.134

Gross National Production:
See Financial

Guide:
Guide to stainless steel markets, 11/26, p.63

Guided Missiles:
Boom in missiles: Charts spending, manufacturers, subcontract info, 7/9, p.63
Chance Vought contract, 8/6, p.84
Chrysler Jupiter contract, 7/9, p.65
Missile guidance systems, TO, 8/13, p.99
Northern Ordnance contract-Navy, 10/29, p.86
Pentagon resolves Army-Air Force status, 12/3, p.86
Ultrasonic cleaning, 8/27, p.92

H

Hardness Testing: See Heat Treating

Hardware:
Industry report, 9/17, p.93

Heat Treating & Annealing:
AISE papers:
Annealing trends, 9/17, p.188
Surface staining of cold rolled steel, 9/17, p.167
Annealing with superfast cooling option: Fairfield Mfg. forgings for gears, 12/3, p.150
Automatic furnace is versatile: Reliance Electric's firing system and cam-actuated program control, 11/19, p.163
Beryllium-copper dies, 7/30, p.117
Continuous annealed brass strip: Fine grained brass for deeper draws, 12/24, p.66
Continuous strip gets tight coat, J&L, 8/6, p.118
Hamilton Watch heat treats stainless parts, 8/20, p.122
Modern Heat Treating:
Hardness testing, Part II, 7/2, p.72
Salt bath nitriding for stainless, 8/6, p.115
Steel plate traffic moves fast in this heat treating line, 11/26, p.90
Stress relief test for titanium (U.S. Gun Factory), 8/6, p.110

Heaters:
Electric heat for plating baths, 12/10, p.170
Heater tube filler on electric range protects against short circuit, 12/10, p.167

Highway Program: See Roads

Honeycomb:
Aircraft, military, civilian uses, 7/2, p.36

Honing:
Gears honed to a whisper (Nat'l Broach), 10/8, p.99

House Trailers:
Revolution on wheels, sales forecast, 7/30, p.54

Housing:
Ceiling on housing starts, industry report, 12/10, p.97
Housing starts, 10/8, p.55; 10/29, p.73; 11/5, p.66

Hydrogen: See Steelmaking

I

Illinois Institute of Technology:
Armour: Hydrogen embrittlement of steel, 11/12, p.138
Armour: Private atom makes bow, 7/9, p.57

Ilmenite:
Cheaper ore for titanium, 10/29, p.128

Impregnating:
GE transformer impregnating system, 12/10, p.179

Incentive:
Motivating men to produce more, 9/24, p.105

Independent Sellers:
Manufacturer-seller relations, 7/30, p.59

India:
Aluminum pipeline, 9/3, p.48
Oxygen converter license, 8/20, p.79
Seeks U.S. tool designs, 12/3, p.81
Tata Iron & Steel expansion, 8/13, p.61

Induction Heating:
Revere Copper billet heater, 8/13, p.99
Induction stirrers upgrade cast steel, (GE foundry), 9/24, p.132

Industrial Components: See Components

Industrial Distributors:
19,000 sellers for hire: Independents and agents serving metalworking, 7/30, p.59

Industrial Financing:
How to plan capital needs, 8/6, p.88

Industrial Furnaces:
Industry report, 8/27, p.42

Industrial Information Institute:
Elects, B, 11/26, p.86

Industrial Parks:
Industrial parks cut costs, development planning, 7/23, p.48

Industrial Relations:
AIC speakers, labor-management, 10/15, p.70

Industrial Diamonds:
Synthetic production outlook, 7/2, p.37

Ingots:
See Production
See Steelmaking

Inspection, Testing:
Adhesive bond for structurals, TO, 12/31, p.57
B-L-H life-test method, TO, 7/16, p.131
Brittle fracture steel test, TO, 12/10, p.141
Calibrator checks bolt tension, 11/5, p.124
Comparator precision checks gage blocks, 12/3, p.139
Core steel tester (GE), 11/19, p.177
Creep tester for high temperatures, 10/29, p.143
Fluoroscope for aircraft casting flaws, TO, 8/20, p.115
GM: Stripes on auto bodies show up flaws, 11/5, p.120
Gage block inspection training, 8/6, p.130
Gear inspection, Western Gear Corp., 11/5, p.111
Hardness test (Brinell) for odd-shaped metal parts, 11/12, p.150
Hot hardness testing (coatings) to ten-thousandths, 9/10, p.143
Immersion test for metal products, 8/27, p.94
Impact loading bomb tester, TO, 8/6, p.109
Midget parts, 11/5, p.141
Miniaturization trend, 7/23, p.81
Moisture monitor, TO, 12/3, p.119
Porcelain enameling bath solution controls, 7/30, p.95
Rod mill, magnetic inspection, 9/3, p.78
Stress relief test for titanium (U.S. Gun Factory), 8/6, p.110
Transformer test center, Westinghouse, 11/5, p.126
Transistors, capacitrol temp. control (RCA): Manufacturing under a microscope, 12/17, p.91
X-ray team breaks bottleneck, Solar Aircraft, 7/2, p.66
See Ultrasonics

Insulation:
Mastic, retards fire, TO, 9/10, p.139

Inventories, Deliveries:
Industrial components, 7/2, p.111; 10/1, p.277
Jobbers quota on steel deliveries (warehouse freeze order), 7/30, p.52
Manufacturers' inventories, 9/10, p.93
Steel pinch after strike: How long to rebuild inventories? 7/30, p.49
Steel products, 4th quarter outlook, 8/6, p.153

Investment Casting Institute:
Elects, B, 12/10, p.133

Iron Ore:
Arizona "Black Hills" deposit, 9/24, p.66
Flotation process benefits brown ore, TO, 12/31, p.57
Great Lakes seasonal record, 11/12, p.74
Imports for furnace use by 1957, 10/22, p.39
Iron ore stocks (chart), 10/29, p.159
Iron ore stocks, consumption, 12/10, p.211
Pittsburgh Steamship strike, effect, 8/20, p.67; 8/27, p.49
Wyoming deposits studied, 12/24, p.28
See Shipments

Italy:
Blast furnace for ILVA, 9/10, p.111
Business outlook, 12/10, p.109

J

Jasper:
Marquette mines, firms participating, 10/8, p.56
Marquette mines: Iron ore has a successor, 10/15, p.72

Jet Engines:
Critical metals restriction lifted, 7/2, p.37; 10/22, p.52; 11/5, p.60
Jet engines roar control, TO, 10/22, p.77

Job Shops:
A toolroom goes job shop, 8/20, p.120
Diecasters report, 9/17, p.86
Machine tool use forecast, 11/19, p.176
Open letter to job shops, 12/3, p.79

Joining:
Cold-welding tools use pressure to join tubing, strip and wire, 9/3, p.83

L

Labor:
Absenteeism report, 8/27, p.58
Alcoa and Reynolds strike, 8/6, p.71
Average annual labor force, 11/12, p.73
AFL-CIO book: Labor United, 12/3, p.77
AFL-CIO conference (white-collar unions), 12/3, p.74
Can firms negotiate, 10/8, p.56
Christmas-Monday off, 11/26, p.52
Cleveland Pneumatic strike issues, 7/9, p.56
Cleveland Pneumatic contract, 7/23, p.39
Coal miners' settlement, 10/15, p.63
Engineer unions grow, 8/13, p.53; numbers, 12/24, p.27
Fringe payments soar, 10/1, p.115
Labor aims at small-medium size firms; Cleveland area cross section, 9/10, p.99
Labor contracts negotiated, Cleveland area, 7/2, p.39; 9/3, p.39; 9/10, p.100 (chart); 12/10, p.91
Labor contracts (see SUB)
Long-term contracts, 12/10, p.91
McDonald electioneering, 12/31, p.21
McDonald opposed by Rarick, 12/17, p.48
Miner contracts, Woodward Iron, 12/3, p.177
Office workers fringe benefits, 12/10, p.100
Ore strike (Pittsburgh Steamship), 8/20, p.67; endangers ore supplies, 8/27, p.49; questions supervisory unionization, 9/3, p.39
Ore strike contract, 9/10, p.100
Overtime ruling, Supreme Court, 12/17, p.48
Railroad contracts, 11/19, p.93
Segregation union loses, 7/23, p.32
Skilled labor scarcity, how to utilize workers, 7/16, p.93
Skilled labor scarcity, 10/1, p.107
Steel strike (see)
Steel fabricator walkouts, 9/10, p.94
Steelworkers goal (L.A. convention): Clerical, technical workers, 9/24, p.68
UAW goal, automotive tool and die shops, 7/30, p.64
UAW demand, short week, 12/10, p.91
UAW membership, Philadelphia, 12/10, p.92
Union dues protested, 10/29, p.74; 11/19, p.93; 12/10, p.92
Union organizational drive (attitude-research survey agencies employed), 10/22, p.39
U.S. Steel hard hit by strike, 8/13, p.51
Westinghouse contract at Lester, Pa., plant, 8/27, p.49
White-collar unionization, 12/3, p.74
Wisconsin Steel strike averted, 7/23, p.38; agreement, 8/27, p.42
Women-work force, 11/12, p.74
See SUB

Laboratories: See Research

Laminations:
Core steel tester, 11/19, p.177

Lead:
Chart: Where lead is used, 9/17, p.94

Lead Industries Assn.:
Moves, B, 9/3, p.74

Leaded Steel:
Lead in steel forgings (Alco machining tech.), 8/13, p.100
How much does lead change steel? (Inland tests), 10/29, p.122
Impact characteristics and properties, 10/8, p.108
Leaded steel gains 60%, market report, 7/23, p.123
Trade names, producers (Metal Selector), 10/1, p.162

Lighting:
Relighting the shop, 8/27, p.86

Lincoln Arc Welding Foundation, James F.:
Design awards, arc welding, 12/10, p.183

Lubricants, Lubrication:
Allegheny Ludlum Ugine-Sejournet process for tool steel extrusions, 7/9, p.92
Britain's Calder Hall atomic plant lube, TO, 11/19, p.141
Coolants for automation, 9/24, p.131
Lubricants of tomorrow, 8/27, p.80
Lubrication in drawing: E. D. Viers, 7/9, p.86; 7/16, p.148; 7/23, p.94
Machine tool, color-coded lube, 10/8, p.104
Machine tool, tri-purpose lube, 8/20, p.130
Sendzimir mill use: Dual coolant-lubricant, water-emulsifiable mineral oil, 7/16, p.142
Titanium extrusion lubricants, 12/17, p.100

M

Machine Tool Industry:
1956: Machine tool shipments lag, industry report, 7/2, p.33
1956 forecast: Profile of a healthy industry, 11/19, p.176
1957 outlook (Raterman), 12/31, p.66
Aircraft makers cite machine needs, 11/19, p.147
Air Force contracts, automation with numerical controls, 8/20, p.130
Automation report, Michigan Tool (Anderson), 7/23, p.43
Coolants for automated machining lines, 9/24, p.131
DOD inventory-replacement program, 10/8, p.68
Foreign builders show automation, 8/6, p.128
Foreign tool buying, advice, 10/22, p.92
Highway equipment sales, 10/29, p.81
India seeks U.S. designs, 12/3, p.81
Job shop forecast, 11/19, p.176
Machine tool users report needs: Higher speeds, one-shot lubrication, 9/3, p.91
Machining aluminum on the automatics, 10/29, p.134
NMTBA meeting, elections: Tool prosperity to stay (Polk), 11/12, p.84
Optical grinder sales, 7/2, p.28 and p.33
Preventive maintenance: Color-lube system; routing machine physicals, 10/8, p.104
Replacement theory (B. A. Margo): A switch in equipment buying, 7/23, p.92
Shipments (see)
South American market, 10/22, p.56
Special machines, how to buy, 7/9, p.105; pre-engineering on bids urged, 12/3, p.139
Special machines' new look, top billing by builders, 9/24, p.76
Standard machine goes special, 9/10, p.146
Superalloy machining outlook, 11/5, p.124
Throwaway cutters gain (survey), 12/17, p.98
Tooling technicians—W&S, 9/17, p.102

Machine Tools & Attachments:
Boring machine mills auto parts, 7/30, p.114
Broach, giant size (GE), 12/3, p.139
Broaching setup for locks, 11/19, p.178
Cemented oxide tools step up machine speeds, 8/20, p.130
Centerless grinder gaging control, 12/10, p.164
Cutter grinder pedestal redesign, simplifies weldment, 11/19, p.180
Drill unit, crane-mounted, 11/5, p.138
Drill on tapping machine, TO, 9/24, p.115
Hobber machines sector gears, 11/12, p.146
Index machine triples output (Leeds & Northrup), 12/24, p.68
Lathe card controls, TO, 12/10, p.141
Lathe speeds jet disc output at P&W: Tracer controlled and center driven, 12/17, p.92
Jig borer has numerical control (P&W), 7/23, p.82
Lathe cuts to close tolerance, 11/5, p.136
Radial draw formers (see Forming, Bending)
Reaming machine, TO, 7/2, p.65
Standard machine goes special (automatic lathe), 9/10, p.146
Switch, electronic detecto-, TO, 8/20, p.115
Transfer machine (Chrysler) turns out three parts, 8/20, p.130

Machinery:
Coated abrasives machinery, what's new, 11/12, p.134

Machinery & Allied Products Institute:
Defense contracts tech data, guard needed, 7/2, p.34
Depreciation policies, 12/31, p.33

Machining:
Aircraft machining conference: Chem-mill progress, etc., 11/19, p.148
Carbide licks a tough cut (GE valve plate-refrigerant), 11/19, p.166
Carboloy machinability computer for expanding shell, 8/13, p.118
Forgings of leaded steel, new technique, 8/13, p.100
Gear tooth honing silencer, 10/8, p.99
Machining aluminum on the automatics, 10/29, p.134
Pantograph engraving, Bell Aircraft, 11/26, p.115

Magnesium:
Dow makes purer magnesium, prices, 12/3, p.74
Magnesium catching on: Production, uses (chart), 12/3, p.90
New producer, Alabama Metallurgical, 7/23, p.112

Magnesium Assn.:
Mill product shipments, 10/8, p.158
Magnets: Ceramet, TO, 10/29, p.121

Magnets:
Magnetized rolls cut tubing, 12/17, p.94

Maintenance:
Capital equipment purchase survey, 7/2, p.28
How steam cleaning speeds maintenance (Kaman), 12/10, p.148
Punch press check list, 11/19, p.172
Refractory gun repairs hot furnace, 10/29, p.130

Malleable Founders' Society:
Elects, B, 7/9, p.82

Malleable Iron:
Malleable foundry shipments, 12/24, p.80
Notch ductility tests, 10/8, p.112

Malleable Research & Development Foundation:
Organized, B, 10/1, p.148

Management:
Absenteeism, how to cut, 8/27, p.58
Building better bosses: Motorola advisory council, 7/9, p.55
Decentralized buying trend, 7/2, p.39
Executive pay (see Salaries)
Management appraisal system, Chrysler, 12/31, p.41
Management at Work:
American-Standard: R. W. Lear, 9/3, p.55
Blaw-Knox: Charles Hauck, 11/26, p.67
Cadillac: Leon De Mause, 12/3, p.89
Carpenter Steel: A. A. Britton Jr., 7/16, p.91
Chrysler: C. B. Gorey Jr., 11/19, p.109
Commercial Contracting: A. D. Beveridge, 8/20, p.83
Hall Laboratories: Dr. E. P. Partridge, 10/29, p.89
Hotpoint: W. A. Kissock, 8/27, p.57
L-R Heat Treating: Frank Rizzo, 12/17, p.63
Lamson & Sessions: Jim Rayburn, 10/1, p.123
National Carbon: Dr. C. E. Larson, 10/8, p.71
National Metal Abrasive: Einar Borch, 7/23, p.47
National-Standard: O. E. Adler, 11/5, p.75
Pheoll Mfg.: W. T. Ylvisaker, 7/2, p.43
Pipe Machinery: C. V. Briner, 8/6, p.87
Square D Co.: A. G. Patterson, 9/24, p.75
Studebaker-Packard: Bill Schmidt, 10/15, p.79
Thompson Products: Stacy Black, 9/17, p.101
U.S. Steel: Bay Estes, 12/10, p.107
W-S Fittings: H. K. Porter; Jackson Kemper, 8/13, p.59
Wales-Strippit: C. A. Ralph, 10/22, p.55
Management Series:
Automation—Bogeyman or Bonanza? 10/15, p.109
How to live with SUB, 7/16, p.121
Industry and college: Partners in development, 11/12, p.119
Motivating men to produce more, 9/24, p.105
To merge or not to merge, 8/13, p.89
Managers, portrait of today's executive, 12/31, p.30
Marketing vice president trend, 12/24, p.38
Personnel men, responsibilities, 9/24, p.70
Research management guide, 8/13, p.55
Supervisors, wage rate differentials, 12/10, p.101

Management-Labor Relations:
Associated Industries, speakers, 10/15, p.70

Manufacturing Agents:
How independent distributors and agents serve metalworking, 7/30, p.59

Manufacturers' Profits:
SEC report, 7/19, p.75

Maps:
Mapping atomic America, 10/29, p.91

Market Programs: See Sales Programs

Markets: See Warehousing, Distribution

Marking, Stamping:
Electrolytic marking, 10/15, p.139
GE marking machines for rigid conduit, 11/12, p.150
Precision stamping (embossing sales), 8/27, p.50
Steel marking codes, committee to meet, 7/23, p.41

Material Handling Industry:
Conveyors, industry report, 11/5, p.76

Material Handling Equipment:
Conveyors:
Conveyors boost foundry output (Michigan Wheel), 9/3, p.84
Cranes, Hoists:
Crane-mounted radial drill press, 11/5, p.138
Overhead crane goes hydraulic (Shaw-Box), 9/24, p.128
Overhead crane moves and weighs tubing, 11/19, p.169
Overhead trolley crane, remote control, 9/10, p.165
Stackers:
Giant stacker for ore pellets, 9/17, p.194
Tractors:
Tractor makes speedy switch engine, Kaiser steel mill: Tractor shovel replaceable by railroad

car switching toggle, 11/26, p.120

Trucks, Gas & Electric:
One truck does the work: Unloads boxes at Foster Wheeler, 10/22, p.99

Material Handling Institute:
Elects, B, 12/24, p.61

Materials & Components:
Core material-Flakenol for communication frequencies, 8/13, p.99

Melting: See Vacuum

Mergers:
Antimerger laws, Republican support, 8/20, p.80
Bendix-Sheffield, 12/31, p.29
Bethlehem - Youngstown (article), 12/17, p.55; Washington views, 12/24, p.35
J & L-Rotary Electric, plans, 12/31, p.29
To merge or not to merge: Management Series, 8/13, p.89

Metal Finishing:
Automatic finishing with Dial-A-Cycle, 10/29, p.143
Coated abrasives finishing, new machines, 11/12, p.134

Metal Powder: See Powder Metallurgy

Metal Powder Assn.:
Appoints executive sec'y, B, 7/16, p.117

Metal Selector:
Insert (special steels), 10/1, p.162

Metal Show:
1956 program, exhibitors, 9/17, p.144
ASM program, 10/1, p.169
Executives surveyed: Taking metalworking's pulse, 10/15, p.69
Metal show section, 10/1, p.155

Metal Treating Institute:
Elects, B, 11/5, p.102

Metal Tubes:
Collapsible metal tube market, 10/15, p.74

Metallurgy:
Blisters in babbitt interface (bearing shoes), 10/8, p.95
Creep tester redesigned, 10/29, p.143
Embrittlement—The unseen culprits (hydrogen, oxygen, nitrogen), 10/8, p.94
Embrittlement of steel, hydrogen culprit, 11/12, p.138
Fatigue study, Bell Telephone lab, 7/30, p.120
Gases in metals, castings porosity problems, 10/8, p.95
Hydrogen reduced, 10/8, p.95
High temp techniques, dip brazed parts, 10/8, p.114
Leaded steel, metallurgical properties, 10/29, p.122
Steel strip temperature affect on physical properties, 10/1, p.164
Superalloy Nivco for 1200°F, developed for steam turbine blades, 7/16, p.138

Metals:
ASM papers: What's new in metals, 10/8, p.107
Atomic plane alloys studied, 8/20, p.119
Basic metals expansion (firms), 8/27, p.53
Columbium-tantalum sales (Shield-alloy); Cashing in on rare metals, 10/22, p.48
Molybdenum, uses today and tomorrow, 10/22, p.81
See Magnesium

Metalworking:
1st half earnings (chart), 8/6, p.83
Highway plan: Road to profit, 10/29, p.79
Metalworking tackles the satellite, 10/15, p.120
Prices react to steel's hike (chart), 8/27, p.47
Puerto Rico market, 11/12, p.85
Sales vice president to marketing v.p.-trend, 12/24, p.38
Taking metalworking's pulse (metal show), 10/15, p.69

Meters:
Specifying industrial gas meters, 12/10, p.183

Midwest Job Galvanizers Assn.:
Organized, 9/10, p.127

Miniaturization:
Miniaturization is big business, 7/23, p.78

Mines:
Bauxite in Haiti, Reynolds, 7/9, p.47
Coal, Kaiser's Sunnyside mine, 7/16, p.140
Coal - soft, production forecast, 10/15, p.63
Copper mine (Peru) sponsors, 8/27, p.52
Jasper pellets, Marquette, firms participating, 10/8, p.56
Jasper Marquette mines: Iron ore successor, 10/15, p.72
Limestone site, good for underground plant, 12/24, p.36
Nickel exploration (Inco) Canada-Minnesota, 8/6, p.80 and 12/10, p.100
See Iron Ore

Missiles: See Guided Missiles

Mobile Homes Manufacturers Assn.:
House trailer sales report, 7/30, p.54

Molybdenum:
Inert gas atmosphere pilot plant hot works molybdenum, 10/22, p.78
Molybdenum: Open for business, uses today and tomorrow, 10/22, p.81

Motion Pictures:
Engines studied while running, 9/24, p.115

Motivating: 4
Employee motivation, management series, 9/24, p.105

Motors & Generators:
Coolant pump motors circulate radioactive fluids, 9/10, p.143
Diecast magnesium stators cut motor weight, 7/16, p.158
Fractional motor sales, 8/6, p.81
Integral motor sales, 9/10, p.103
NEMA standards: More new motors to come, 7/30, p.92

N

National Association of Credit Men:
Price index outlook, 12/31, p.21

National Association of Manufacturers:
Swigert new president: Advocates tax reform, right-to-work laws, broader marketing, 12/17, p.59

National Assn. of Purchasing Agents:
Expansion money, survey, 11/5, p.59

National Bureau of Standards:
Ceramics and creep study, TO, 12/24, p.63
Comparator precision checks gage blocks, 12/3, p.139

National Electrical Manufacturers Assn.:
Elects, B, 12/10, p.133

National Federation of Independent Scrap Yard Dealers:
Elects, 12/31, p.55

National Industrial Conference Board:
Conference: Eight yardsticks for profit margins, 10/1, p.117
Economists meeting, 12/10, p.98
Inflation shown in executive tax-salary, 9/3, p.40
Labor contracts run longer, 7/2, p.39
Top pay for executives, 10/15, p.73
Trend in decentralizing purchasing, 7/2, p.39

National Electrical Manufacturers Assn.:
Motor standards extended, 7/30, p.92

National Machine Tool Builders' Assn.:
Meeting-elections: Polk forecasts, 11/12, p.84
Tell Berna reports England, sales to Russia, 8/20, p.130
Tell Berna resigns, 11/12, p.84

National Office Management Assn.:
Office fringe benefits, survey, 12/10, p.100

National Resources Conference:
Civic groups study, nation's economy and its military power, 9/3, p.48

National Tool & Die Manufacturers Assn.:
Elects, 11/12, p.115
Special tooling contracts, 9/10, p.94

Navy:
Naval Air Materials furnace contract, 9/3, p.73
Research report, hi-temp furnace, 9/3, p.103
Research report, molybdenum progress, 10/22, p.80

Nickel:
Allocation-controls, 12/17, p.60
Inco mines in Moak Lake (Canada) and Minnesota, 8/6, p.80
Inco mines, Moak Lake, development, 12/10, p.100
Nickel shortage, prices, 11/5, p.185
Nicaro, Cuba plant production U.S. owned), 7/30, p.44
Philippine project, U.S. firms' interest, 7/23, p.31
U.S. share of free world supply, 9/3, p.39
U.S. supplies, next five years, 9/3, p.50

Nitriding:
Another look at nitriding (ammonia gas use, testing methods, properties of nitriding steel parts), 8/20, p.134
Cheaper case for stainless, nitriding with liquid salt, 8/6, p.115

Nodular Iron:
New process for making nodular iron (two heats in a basic cupola), 10/22, p.83
Nodular graphite produced in cast iron, 10/8, p.110

Nonferrous Metals:
Suez tension hits metals, 8/13, p.162

Numerical Control:
Numerical control for jib borer, 7/23, p.82

Nylon:
Aircraft fuel pump parts of nylon powder, TO, 12/17, p.85

O

Office of Defense Mobilization:
Group study, lead time on new manned aircraft, 9/17, p.98
Metals action seen, 7/2, p.27
Tanker program (see Shipbuilding)
Trigger tool orders, 9/10, p.94
Missile appropriations, 9/17, p.98
See BDSA

Office Buildings: See Construction

Office Furniture:
Metal office furniture sales, 9/10, p.104

Office Systems:
Data processing forecast, 9/24, p.59
Offices go for automation, 12/3, p.84

Office Workers:
Advance pay for severances, fringe benefit, 12/10, p.100
Cummins Engine committee negotiates with executives, 8/13, p.62
Shift work forecast, 7/30, p.44
Steel union seeks clerical, technical workers, 9/24, p.68

Oil-Gas Industry:
Oil field equipment, sales, 7/9, p.48
Middle East crisis (see Suez)

Openhearths:
AISI study, number of furnaces, 11/19, p.93
General Refractories: All - basic openhearth, 9/17, p.192
Granite City Steel: Faster changeover with charging boxes, 12/24, p.70
Weirton 600-ton furnace, TO, 12/31, p.57
Wickwire Spencer, 9/10, p.215

Orders, Invoicing:
Datamatic system, forecast:, 9/24, p.59

Ores:
Comminution separation, small chunks from big ones, TO, 12/10, p.141
See Mines

Outboard Motors:
Sales outlook, 10/1, p.108; 11/5, p.60

Oxygen: See Steelmaking

P

Packaging, Containers:
Collapsible metal tube market, 10/15, p.74
Drums: Expansion paradox, 12/3, p.82
Packaging boom foreseen, industry report, 9/24, p.65
Pallet sizes, Commerce chart, TO, 9/3, p.77

Parks: See Industrial Parks

Personnel Specialists:
Personnel men challenged (responsibilities), 9/24, p.70

Photoelectric Tubes:
Photoelectric cells speed mill production, 12/31, p.64

Photography:
Auto engineers study parts failure, 7/16, p.95
Auto engines studied while running, 9/24, p.115
More uses for photography, industry report, 9/17, p.96
Photographic equipment sales, 7/9, p.48

Plastic:
Plastic pipe finds a place, 8/6, p.124
Plastic pipe handles corrosive muriatic acid, 10/8, p.116
Plastic reactor pressure vessel model, study stresses, 12/31, p.70
Vinyl plated steel, 9/3, p.103

Pickling:
Hurry-up solution control (for porcelain enamelers), 7/30, p.95

Piggyback: See Freight Cars

Pilot Plants:
The plant that outlaws air(Universal-Cyclops inert gas atmosphere), 10/22, p.78

Pipe, Tubing, Fittings:
Pipe moved on flatcars, 11/12, p.91
Plastic pipe finds a place, 8/6, p.124
Plastic pipe handles corrosive acid, 10/8, p.116
Seamless tubemaking process, 9/17, p.172
Small piping joined by threading, TO, 10/29, p.121
Teflon hose coupling, TO, 8/27, p.79
Tubing cut, magnetized transfer roll, 12/17, p.94

Pipelines:
Aluminum pipe for India, 9/3, p.48
Gas pipeline and facility expansions, 10/1, p.124
Steam line under pavement melts snow on storage areas, 11/12, p.91
Wrought iron pipe for cable crossing, 12/24, p.61

Pipe Mill:
Canadian projects, 12/10, p.99
Drill pipe plant (Houston, Reed Roller Bit: Automation handles 30-ft parts, 12/10, p.146
German mill, Regina, Sask., postponed, 9/3, p.40
Kaiser Steel continuous weld, quality control, 9/10, p.148

Plant Equipment: See Capital Equipment

Plant Expansion:
Air Reduction, Los Angeles, 7/23, p.65
American Can, Hammond, Ind., 8/27, p.75
Armco Steel, 10/8, p.62
Chrysler piston foundry, 8/27, p.62
Diamond Alkali program, 10/15, p.97
Dominion Bridge, coast-to-coast program, 10/22, p.49
Fansteel tantalum - columbium plant, 8/27, p.53
Ford aluminum casting plant, Ala., 10/15, p.75
Ford Chester plant, 7/16, p.96
GM-Euclid div., Hudson, schedule, 10/8, p.65
IBM—Lexington facilities, Kingston lab, 7/16, p.109
Kaiser Industries, 12/10, p.99
Kennecott Zirconium pilot plant, 8/27, p.53
LeTourneau-Westinghouse, Peoria, 8/6, p.105
Line Material, West Coast plant, 10/8, p.63
Norton at Huntsville, Ala., 12/17, p.56
Penn. Malleable foundry, 12/10, p.103
Republic, Ferndale, Mich., 10/29, p.107
Republic's titanium facilities at Canton, 8/13, p.51
Reynolds plant, Listerhill, Ala., 7/30, p.51; 10/15, p.75
Sheffield Steel at Houston, 9/17, p.92
Titanium Metals, Henderson, Nev., 8/27, p.53
Titanium Metals, Toronto, O., 11/5, p.93
Trane Co., 10/22, p.49
U.S. Industrial Chemicals, Ashtabula titanium plant, 10/1, p.119
U.S. Steel oil purification facility, 9/3, p.73
Vanadium-Alloys, Latrobe, 8/20, p.79
Warner & Swasey, 9/3, p.51

Plant Service:
Automated in-plant food service, 12/24, p.43

Plant Sites:
Dispersal of new plants urged by U.S., 7/9, p.60
Planning a suburban plant, 8/20, p.84
Underground plants, 12/24, p.36
See Area Development

Plant Stabilization:
Company techniques, management series, 7/16, p.121

Plumbing Brass Institute:
Elects, 12/24, p.61

Porcelain Enameling:
Conversion chart: Hurry-up bath solution control, 7/30, p.95
New direction on porcelain enamel (on aluminum foil), 12/3, p.142

Powder Metallurgy:
Market growth: Bigger powder metal parts, 7/9, p.139
Sintering: Metal powder parts get new look, 12/3, p.121

Power Brushing:
Industry report, 11/19, p.111

Power Plants & Generators:
Puerto Rico plant, 8/13, p.61

Power Transmission (Mechanical):
Whitney Chain new magnetic drive, 11/26, p.118
See Turbines

Precision Stamping:
Industry sales, 8/27, p.51

Prefabricated Home Manufacturers' Inst.:
Elects, B, 10/15, p.106

Pressed Metal Institute:
Elects, B, 10/22, p.74

Presses:
Compression (rubber) forming presses for aircraft, 7/30, p.109
Compacting press for metal powder parts, 12/3, p.121
Cored forging presses, 7/2, p.67
Forging press, 800-ton, Harvey, 12/24, p.60
Forging press for tool steel (Allegheny Ludlum), 9/3, p.103
Hufford bending press (Douglas Aircraft): Forming matches mill output, 12/31, p.69
Hydraulic stamping, 9/10, p.144
Modular presses, easy change-over, 10/22, p.92
Presses expedite small assemblies (Chrysler Indianapolis plant), 9/3, p.88
Punch press maintenance check list, 11/19, p.172
Split die presses, 11/26, p.94

Pressure Vessels:
Aluminum alloy material, TO, 9/10, p.139
Combustion Eng. fabricates giant reactor vessel, 10/15, p.135
Stresses studied in reactor pressure vessels, 12/31, p.70

Price Cutting:
Job shops, 12/3, p.80

Prices:
Fastener industry, net pricing, 10/15, p.163
Ferroalloys, old and new base price, 12/24, p.104
German steel, 10/29, p.74
Metalworking prices react to steel's increase, 8/27, p.47
Nonferrous price record, 8/27, p.140
RB&W new pricing system, 8/27, p.118
Scrap increase, 7/30, p.157; due to demands, 8/6, p.71 and p.173
Scrap price composite, 8/27, p.137 and p.42
Sheets (cold-rolled vs hot-rolled), 9/3, p.123
Steel base prices for selected products (after strike settlement), 8/13, p.49
Steel increases recent years (1955-'48), 7/2, p.27
Tin up, 8/6, p.176
U.S. Steel, new prices, 8/13, p.50
Wholesale price index, 8/24, p.48; 12/31, p.21

Procurement:
Decentralized buying trend, 7/2, p.39
Government buyers cost conscious, 7/2, p.30
Tech data guard needed for defense contracts, 7/2, p.34

Product Development:
Guide for better profits: Oliver speaks before NICB, 10/1, p.117
Importers, how they create markets, 11/22, p.89

Production:
Autos, 4th quarter, 9/24, p.79
Copper, 6 mos., 7/23, p.112
Drawn wire, 9/10, p.209
Magnesium, 12/3, p.90
Nickel (world), five year forecast, 9/3, p.50
Primary aluminum, Alcoa forecast, 10/8, p.55
Slag, Bureau of Mines report, 7/9, p.48
Stainless steel, 9/10, p.210
Steel ingot (tables): 8/20, p.159; 9/17, p.235; 10/22, p.125; 11/19, p.216; 12/17, p.127
Steel (world), 10/22, p.57
Steel, world trends (article), 12/31, p.38
Steel productivity, Labor Statistics, 10/8, p.56
Uranium, 12/24, p.28; 12/31, p.31

Production Control (Toolrooms):
Pontiac tool control system, 10/1, p.127
Warner & Swasey: A toolroom goes job shop, 8/20, p.121

Production Controls:
Automatic control on "Z" rolling mill, 9/17, p.168
Automatic control, steel mill electric system, 9/17, p.184
Automatic gage controls centerless grinding, 12/10, p.164
Card controls on lathe, TO, 12/10, p.141
Dial-A-Cycle, metal finishing automatic, 10/29, p.143
Electronic recorders for continuous casting, 10/22, p.86
Carboloy computer aids shell machining, 8/13, p.118
IBM automatic production recording system (APR), 9/17, p.97
IBM tool control system (Pontiac), 10/1, p.127
Westinghouse - Sharon transformer plant: Computer makes magic, 11/5, p.126
Photoelectric cells speed steel mill output, 12/31, p.64
Manufacturing under a microscope (RCA transistor-capacitrol temp. control for tiny parts), 12/17, p.91
Numerical control for jig borer, 7/23, p.82
Tape control speeds riveting (Northrop), 11/26, p.93

Production Processes:
CO_2 speeds coremaking, 8/6, p.111
Cold extrusion tool up for production, 11/5, p.107
Cooling tunnel for bluing line whips space problem, 7/23, p.85
Gear production, cycle furnace continuously handles forgings, 12/3, p.150
Holes forged in, 7/2, p.67
Metal powder parts get new look (compact presses), 12/3, p.121
Pantograph engraving, Bell Aircraft, 11/26, p.115
Short run dies, techniques, 9/3, p.79
Split die forging solves a problem, 11/26, p.94

Profits: See Financial

Profit Sharing:
Types of plans, 9/24, p.111
Profit sharing moves in (Cleveland conference), 11/19, p.105
Better methods for profit-depreciation, MAPI policies, 12/31, p.33
Yardsticks for better profit margins on products, 10/1, p.117

Profit Sharing Industries:
Elects chairman, B, 12/3, p.116

Project Vanguard: See Satellite

Public Relations:
Cummins Engine office workers' meet with executives, 8/13, p.52

Puerto Rico: See South America

Punch Presses:
Keep punch presses — punching (maintenance checklist), 11/19, p.172

Purchasing Agents Assn. of Chicago:
Business report, 7/19, p.75; 9/17, p.86

Purchasing Agents Assn. of New York:
Elects, 7/2, p.63

Q

Quality Control:
Nut quality into bolt tightening, 11/5, p.123
Quality control at operator level (Parker Appliance), 11/26, p.112
Quality control charts plating savings, 7/23, p.90
Quality control in a pipe mill (Kaiser), 9/10, p.148
Sample your incoming quality (Motorola), 9/24, p.120

R

Radio-Electronics-Television Mfrs. Assn.:
Elects president, B, 7/2, p.63
Moves headquarters, B, 12/17, p.82

Radio, Television:
Allen Du Mont forecasts TV market, 9/3, p.40
Cleveland Browns ultrahigh frequency radio direction, 10/1, p.108
Closed-circuit sales, 12/10, p.92
Closed-circuit for Weirton reheat furnace, 7/30, p.111
Flakenol-core material for communication frequencies, 8/13, p.99
GE - Ryder contract: Two - way radio for trucks, 7/16, p.86
Radio, TV prices stable, 9/24, p.59
Sheffield Steel crane to floor radio, 7/30, p.106

Railroads:
"Convert-a-Frate: Experiment in railroading, 12/3, p.85
Piggyback (see Freight Cars)
Spending needs forecast, 12/10, p.91
See Freight Cars, Freight Rates

Rail Steel Bar Assn.:
Supply - demand picture, 11/12, p.179

Rare Metals:
Cashing in on rare metals (Shield-alloy Corp.), 10/22, p.48

Raw Materials:
Africa's West Coast resources, 9/10, p.106

Reactors: See Atomic Energy

Recruiting:
Industry and college: Partners in development, 11/12, p.119

Refineries: See Smelters

Refractories:
All-basic brick open hearth, 9/17, p.192
Kaiser makes basic brick, 10/8, p.63
Refractory gun repairs hot furnace, 10/29, p.130
Silica brick for arc furnace treated to eliminate dust, 9/3, p.86
Silicon carbide, a material with a big future, 11/5, p.106
Vacuum melt materials, 12/17, p.90

Research:
Argonne National Lab: Rolling mill processes nuclear materials, 12/3, p.148
Atomic labs, Du Pont and Westinghouse, 9/3, p.51
Battelle Memorial: Co-op research, 7/16, p.76
Battelle Memorial: Open for research (pool - type reactor), 11/12, p.136
Britain sold on benefits of research, 7/2, p.45
Combustion Eng. Windsor lab, atomic energy reactor, 8/27, p.59; 10/15, p.135
Company labs, new projects, 12/10, p.130
Defense spending, 11/26, p.64
Factory laboratories, organization, 11/12, p.130
High temp. alloys for jets (see Stainless)
Industrial Reactor Laboratories formed (ten firms), 10/8, p.89
NRC enterprises (chart), 11/19, p.104
Research directors: Guide for management, 8/13, p.54
Union Carbide lab, Parma, O., 9/24, p.93
Westinghouse lab dedicated: Cross section of program, 10/15, p.142
Westinghouse scientists study stresses inside reactor pressure vessel, 12/31, p.70

Resistance Welding Alloy Assn.:
Organized, B, 7/9, p.82

Rhenium:
Battelle research, rhenium in electron tubes, 11/26, p.89

Riveting:
Tape control speeds riveting (Northrop), 11/26, p.93

Roads:
Highway plan: Road to profit, 10/29, p.79
Highway program:
Galvanized culvert pipe use, 9/10, p.94
Steel consumption and manpower, forecast, 7/30, p.43
Steel consumption per year, 9/3, p.40
Structural steel consumption (chart), 9/17, p.227
Highway spending forecast, 11/5, p.67

Rock Island Railroad:
Convert-a-Frate, flat car piggyback, 12/3, p.85

Rockets:
Project Vanguard (see Satellites)

Rolling Mills:
Automatic control on a "Z" mill, 9/17, p.168
Inland rolling mill for metal roof and floor sections, 7/30, p.97

Rolling mill processes nuclear materials, 12/3, p.148
Sendzimir mills, 7/16, p.142; 7/30, p.55; 8/20, p.128

Roofs: See Construction

Rubber:
Industrial rubber sales, 10/29, p.90
Rubber forming gains accuracy for supersonic aircraft, 7/30, p.109

Russia:
Industrialists' visit: Don't sell Russia short, 11/19, p.102
Lee Wilson visits Russian steel mills, 8/27, p.88
Trade proposal to Britain, 7/2, p.45
U.S. exports sheet steel to Russia, 7/23, p.44

S

St. Lawrence Seaway:
American work 15 per cent finished, 10/8, p.73
Lake shipbuilding, seaway's role, 7/30, p.53
Seaway too shallow? 12/31, p.22
Steel plate and structural shortage, 9/3, p.52

Safety:
Garment protection for furnace repair, TO, 7/23, p.77
Prevention of gas incidents, U.S. Steel, 9/17, p.178

Salaries:
Engineers-scientists, AMA survey, 11/5, p.70
Executive salary-tax payment (inflation sidelight), 9/3, p.40
Executive salaries rise, 12/17, p.48
Industrial relations men, 8/6, p.72
Office workers, advance payment a fringe benefit, 12/10, p.100
Salesmen, 9/17, p.97
Supervisors, differential rate, 12/10, p.101
Top executives pay (chart), 10/15, p.73

Sales: See Business

Salesmen:
AMA surveys salesmen earnings, 9/17, p.97
Average cost of a salesman's call, 10/15, p.80

Sales Programs:
19,000 sellers for hire: How independent distributors and agents serve metalworking, 7/30, p.59
Boston Gear training helps distributors to sell, 7/16, p.86
Check small accounts' cost, 10/15, p.81
Detroit Steel: Operation grassroots, 12/17, p.121
Marketing - vice president post created, 12/24, p.38
Importers, how they create markets, 11/12, p.89
Westinghouse campaign aims at strike recovery, 7/2, p.39

Salt Baths:
Descaling titanium sheet, oxidized salt bath, 12/31, p.62

Sampling: See Quality Control

Satellite:
Project Vanguard: Rocket sphere tackles the satellite, 10/15, p.120
Naval Research contract, magnesium sphere, 9/3, p.77
Satellites, future relay TV system, TO, 12/3, p.119
Satellites, three coats, TO, 11/26, p.89
Vanguard satellite test, Fla., 12/10, p.92

Sawing:
How to saw titanium, 10/8, p.100

Scientific Apparatus:
Apparatus sales, 7/9, p.59

Scrap:
Bundles for steel mill improve, 7/2, p.37
Congressional study, 9/3, p.52
Exports near record, Japan No. 1 spot, 11/26, p.141
Nickel-bearing stainless scrap, supply report, 11/5, p.185
See Prices

Scrapyard Equipment:
Georgia open house, '57 models, 11/5, p.70
Investment for handling equipment (balers, shears, etc.), 9/10, p.101

Screw Machine Products:
1956 sales forecast, 7/30, p.43

Sealing:
Chemical locknut (Loctite sealant), 8/13, p.104
Pipe joint seal checks cyanide oozing, TO, 8/6, p.109
Solderless seal, glass-metal, TO, 7/30, p.91

Selective Service:
Firms urged to check reserve status, 10/22, p.47

Service Tools Institute:
Elects, B, 11/5, p.102

Sheet & Strip:
Cold-rolled vs hot-rolled sheets, outlook, 9/3, p.123
Continuous cast strip (Hazelett process), 8/27, p.83
Continuous strip gets tight galvanized coat (J&L), 8/6, p.118
How temperature affects strip (steelmaking progress), 10/1, p.164
More strip from a Sendzimir (Wallace Barnes), 7/16, p.142
Sheet bluing line, cooling tunnel whips space problem, 7/23, p.85
Vinyl plated strip coat, colors-textures, 9/3, p.103

Shellmaking:
Cold extrusion process, 11/5, p.108
Rotary furnaces speed shellmaking, Rheem Mfg., 10/22, p.102

Shell Mold: See Casting

Shipments:
Aluminum, 12/31, p.27
Aluminum castings, where they go, 11/12, p.82
Aluminum shipments analyzed, 11/5, p.69
Conveyor equipment, 11/5, p.76
Finished steel: 7/17, p.207; 9/17, p.233; 10/29, p.165; 11/19, p.216
Machine tools, 7/2, p.33; 7/30, p.43; 11/26, p.52
Malleable shipments, 12/24, p.80
Metal stampings, 8/27, p.51
Nonferrous extrusions, 12/10, p.102
Rolls, steel and iron, 8/20, p.75
Silicon steel, 12/3, p.173
Stainless steel mill shipments:
1st quarter: Who uses stainless steel, 8/13, p.139
1st half: Guide to stainless steel markets, 11/26, p.63
Steel: Export-Import trends shift, 7/30, p.137
Steel castings, survey, 10/8, p.64
Tool steel, 12/31, p.78
Valves, 10/22, p.50

Shipping:
Delaware river dredging, 9/3, p.56
NYC moves Labrador ore, competitive with Seaway, 9/10, p.94
Ore season, record length, 11/12, p.74
Ore season ends, 12/24, p.28
Ore ships' tie-up (steel strike), 7/16, p.84
Ore shipments loss (steel strike), 8/6, p.79
Ore ships operating, 9/17, p.85
Shippers' plan transportation Baedeker, 9/24, p.72

Ships, Shipbuilding:
Aircraft carrier-nuclear powered, 8/6, p.72
Ingalls hits its stride, 9/24, p.69
Lake shipbuilders face competition with seaway, ore carriers needed, 7/30, p.53
Merchant ship, nuclear power, o.k.'d, 10/22, p.52
Submarine atomic power plant, Combustion Eng., 8/27, p.59
Tanker program-defense, 10/22, p.52; 11/5, p.59; 11/26, p.64; 12/10, p.104
Tanker proposals o.k.'d, 12/24, p.40

Shop Equipment:
Cutting table for layout, 9/10, p.168
Relighting the shop, 8/27, p.86

Silicon Carbide:
A material with a big future, 11/5, p.106
Supply, demand in balance, 12/3, p.173

Sintering:
Armco plant, 7/16, p.84
Sintering machines scheduled, 10/8, p.73
Sintered parts made from metal powders, 12/3, p.123
Something new in sintering: U.S. Steel plant design for Youngstown, 7/2, p.74

Skilled Labor:
Solve skilled labor scarcity, use skills you have, 7/16, p.93

Slabbing Mill:
Republic contract, 7/30, p.86

Small Business:
AMA seminar outlines problems for small business, 11/19, p.110
Defense contract opportunities, 12/10, p.103 and p.92
Definition of small business, 12/10, p.104
Eisenhower campaign promises, 10/29, p.73
Government buying, SBA share, 12/10, p.103
Why it misses government orders, 10/22, p.52

Smelters:
Federated aluminum smelter, Alton, Ill., 12/10, p.125
Government tin smelter for sale, 7/30, p.56
J&L Hydrofining and Udex process improves coal chemicals, 8/27, p.79

Smoke-Smog:
Los Angeles tightens smog control, 11/12, p.89

Social Security:
Taxes increased in Jan., 8/20, p.68

Society of Automotive Engineers:
Engine revolution talk, 10/22, p.60
Plating standards considered, 7/9, p.67

Soldering:
Soldering keeps up to date, 12/17, p.86

South America:
Bauxite from Venezuela, 7/30, p.44
Machine tool market, 10/22, p.57
Metalworking expansions, 7/2, p.45
Puerto Rico drive for American industry, 8/13, p.61
Puerto Rico markets report, EDA, 11/12, p.85

Specifications:
Write savings into specs (Ford control system), 11/26, p.116

Spinning:
Lukens process for titanium, TO, 12/31, p.57

Stainless Curtains: See Construction

Stainless Steel:
200 series, Republic production, 7/9, p.94; corrosion properties, p.96
300 series, production, 11/19, p.106
Aircraft design properties (austenitic stainless), 11/5, p.142; (martensitic stainless), 11/12, p.152
Austenitic stainless, machining study, 10/8, p.107
Auto use for '57, 10/29, p.93
Brazing techniques, 9/3, p.94; 9/10, p.158
Cadillac-Eldorado, stainless steel top, 12/3, p.93
Chart: Who uses stainless steel, 8/13, p.139
Chart: Guide to stainless steel markets, 11/26, p.63
High temperature effect of stainless containing titanium, boron, 10/8, p.107
Nitriding with liquid salt: Cheaper case for stainless, 8/6, p.115
Supersonic aircraft, market demand, 9/24, p.67

Stamping:
Hydraulic stamp of quality (agricultural equipment), 9/10, p.144
Precision stamping sales, 8/27, p.51

Standards:
Auto plating standards, 7/9, p.67
Ford control system: Write savings into specs, 11/26, p.117
NEMA standards extended, 7/30, p.92

Steel:
Defense steel (see BDSA)
Earnings (see Financial)
Sculptured steel for auto design, 8/13, p.63
See Capacity
See Expansions
See Prices
See Production
See Shipments
See Wages

Steel Door Institute:
Elects, B, 12/10, p.133

Steel Founders' Society of America:
Awards for product development contest, 11/5, p.136
Briggs to address German meeting, 7/30, p.88
Steel castings market forecast, 10/8, p.64 and (editorial), p.59

Steel Kitchen Cabinet Mfgs. Assn.:
Elects, 7/2, p.63

Steelmaking:
AISE convention report: No rest for steelmaking, 10/8, p.102
AISE technical papers, 9/17, p.154
Air system, J&L Pittsburgh Wks., 12/10, p.150
Aluminum coated wire, oil tempering report, 12/3, p.128
Aluminum rod upgrades killed steel, 9/24, p.124
Austin (J&L) predicts revolution in steel, 10/1, p.117
Blast furnaces:
Lower ash for better coke, 7/16, p.140
More iron without more furnaces, Part 1, 11/19, p.150; 11/26, p.98
Continuous casting, electronic recorder controls, 10/22, p.86
Continuous strip gets tight coat (J&L), 8/6, p.118
Crane to floor radio control, 7/30, p.106
Electrode makers forecast electric furnaces, 8/27, p.117
Electrode training: Lesson in electrodes for electric furnace use, 7/23, p.86
Embrittlement, hydrogen in steel, 11/12, p.138
Embrittlement, hydrogen, oxygen, nitrogen—the unseen culprits, 10/8, p.94
Faster charge for open hearth (Granite City Steel), 12/24, p.70
Flange beams, Inland offers wider range, 8/13, p.106
Hot tops increase ingot yield (Braeburn Steel), 7/30, p.100
Magnetic inspection at rod mill, 9/3, p.78
Magnetic rolls cut crop loss (Pittsburgh Tube), 12/17, p.94
Oxygen consumption, 7/2, p.44
Oxygen converter use, 9/17, p.186
Oxygen economics (Air Products estimate), 11/5, p.115
Oxygen process, India, 8/20, p.79
Photoelectric cells speed mill production, 12'31, p.64
Quality control in a pipe mill (Kaiser), 9/10, p.148
Raw material preparation (ores), 9/17, p.181
Refractory gun repairs hot furnace, 10/29, p.130
Russian steel mills visited by Lee Wilson, 8/27, p.88
Silica brick treatment eliminates dust, 9/3, p.86
Sintering plant, U.S. Steel-Youngstown, 7/2, p.74
Stainless 200-type, ASTE meeting report, 7/9, p.94
Steel challenges the young (tech. graduates), 10/15, p.128
Steelmaking: Portrait of tomorrow, 9/17, p.137
Strip, temperature affects, 10/1, p.164
Vacuum (Stokes process) stream degassing technique, 11/12, p.144
Water clarification tanks (Armco): Good will on the water front, 8/20, p.124

Steel Mill Buying:
Cleveland manufacturer reports steel pinch, 8/27, p.41
Want to be a mill customer? (how to distinguish mill buyer from warehouse customer) 8/20, p.77

Steel Mill Equipment:
Automatic controls for steel mill electric drive system, 9/17, p.184
Automatic control on Sendzimir mill, 9/17, p.168
Mill builders up output, 9/3, p.49
Photoelectric cells speed mill production, 12/31, p.64
Thyssen (German mill) buys equipment, 9/17, p.85 and p.103
Weirton's new mill equipment, 8/20, p.128

Steel Mills:
Acme plans mill, 9/17, p.92
Atlantic Steel bar mill, 12/3, p.107
Bethlehem contracts, 8/27, p.75; 9/24, p.66
English plant goes atomic, 11/5, p.71
France builds at Dunkirk, 7/9, p.48
Hawaiian plant, 10/22, p.39
Inland mill rolls roof and floor sections, 7/30, p.97
Inland slab mill, 7/16, p.84
Inland wide flange beam mill, 8/13, p.106
Italian mills, 10/8, p.67
J&L hot-dip galvanizing line, 8/6, p.118
J&L Houston mill for seamless pipe, 7/9, p.57
Montana steel mill, 12/3, p.83
Phoenix to build integrated mill in New Jersey, 12/24, p.35
Pittsburgh Steel billet mill, Monessen, 8/13, p.77
U.S. Steel, Pittsburg, Calif., plant, report, 10/22, p.39
Vancouver mill foreseen, 12/10, p.99
Wallace Barnes: More strip from a Sendzimir, 7/16, p.142
Washington Steel Sendzimir mill, 7/30, p.55
Weirton Steel: New 5-stand mill delivers cold rolled strip at 80 mph, 8/20, p.128
Worcester Pressed steel sells rolling mill, 11/26, p.85

Steel Piling:
Shipments, industry report, 12/10, p.205

Steel Plate:
Plate traffic moves fast in (heat treating) line, 11/26, p.90

Steel Strapping:
Industry report, 11/19, p.103

Steel Strike:
Chart: Prestrike platforms (companies-union), 7/9, p.54
Chart: Settlement, 3-year contract: Peace and prosperity with inflation, 8/6, p.77
Chart: Settlement, 3-year contract: base price increases, 8/13, p.49
Companies still operating, 7/9, p.54
Companies still operating (chart) AISI listing, 7/16, p.82
Company training, vacations during strike, 7/23, p.39
Crystal-balling the strike: Stop-strike forces gather, cost to date, 7/23, p.37
Foundry supply adequate, 7/9, p.56
Inventory pinch after strike: How long to rebuild, 7/30, p.49
Steel settlement outlook, effect on other wage negotiations, average earnings for steelworkers, 7/30, p.51
Steel settlements in past (1949-55), 7/30, p.51
Strike impact on steel users after 15 days, 7/16, p.81
Strike impact, U.S. Steel, 8/13, p.51
Strike loss (sales-wage), 8/6, p.78; 7/30, p.50; editorial, 7/30, p.47; forecast, 7/9, p.53
Strike loss (work hours), 7/9, p.47 and 53; 11/19, p.111
Strike recovery for mills, how long, 7/30, p.50
Strike recovery pushed by mills, 8/6, p.79

Stockholder Reports:
Better communications, employees given annual reports, 9/10, p.102

Stock Purchase:
Chrysler plan for salaried employees, 7/16, p.95
GM plan, salaried employees, 7/2, p.38

Stockpiles:
Government piles declining, 12/10, p.104
Metal stockpiling harmful? 9/24, p.60
Minerals program, 8/27, p.59

Strikes:
See Labor
See Steel Strike

Strip: See Sheet & Strip

Structural Steel:
AISC convention, outlook: Bookings last 12 months, 11/5, p.67
Federal highway take, 9/17, p.227
Plate-srucrturals inventories, 11/5, p.177
Gray market denied, 11/26, p.51
ODM expansion study, 7/23, p.31
Wide flange beams, Inland, 8/13, p.106

Suez:
Suez affect on business, 11/26, p.51; on metalworking, 12/10, p.109; on Germany, 12/24, p.45
Suez timetable, 12/17, p.65

Supersonics:
Stainless steel demand, supersonic aircraft, 9/24, p.67

Supervisors: See Management

Supplemental Unemployment Benefits:
Auto companies' payments, 12/10, p.91
Auto type-contract, Goodyear Aircraft, 11/5, p.60
Auto type-contract, IRS ruling, 8/20, p.68
Goodrich, Goodyear contracts, 7/23, p.32
How to live with SUB (management series), 7/16, p.121
Progress report on SUB, 11/12, p.81
Vested glass-type contract, Ohio o.k., 7/30, p.44

Surface Treatment:
Continuous strip gets tight coat, 8/6, p.118
Enameling on aluminum foil: New direction for porcelain enameling, 12/3, p.142
Fine grained brass for deeper draws (continuous anneal), 12/24, p.66
Tape applicator protects metal finishes, 8/13, p.104

Surveys:
AIC: Average wage settlements, 1st half '56, 7/2, p.39; 9/3, p.39; 9/10, p.100
AMA:
Engineer-scientists-salaries, 11/5, p.70
Industrial relation salaries, 8/6, p.72
Salesmen-earnings, 9/17, p.97
Supervisors wage rate, 12/10, p.101
ASWA: Who uses stainless steel (warehouse stocks), 8/13, p.139
Bureau of National Affairs: Wage increases, 7/23, p.38
CABRA: Copper in autos, 11/26, p.62
Executive characteristics, aid for selection, 12/31, p.30
Goodrich: Engineer-scientist need, 12/10, p.101
Gray Iron Founders', customer survey, 11/12, p.83
MAPI: Equipment replacement, depreciation policies, 12/31, p.33
NICB: Union contract length, 7/2, p.39
NOMA: Office fringe benefits, 12/10, p.100
Steel Founders': Shipments of steel castings, 10/8, p.64

Sweden:
1957 economy report, 12/10, p.108

T

Taconite:
Giant stacker (Hoyt Lakes) aids pallet storing, 9/17, p.194
Reserve Mining dedicates Silver Bay processing plant, 9/17, p.92

Tantalum: See Columbium-Tantalum

Tape Applicator:
Protects polished metal surfaces, 8/13, p.104

Tape Control:
Numerical control for jig borer, 7/23, p.82
Tape control speeds riveting, 11/26, p.93

Taxes:
Bulletin F revised, 11/19, p.100
Bulletin F (IR) revision foreseen, 9/10, p.106
Corporate tax a new look, 11/5, p.72
Exemptions extended, 8/20, p.68
Executive taxes (inflation sidelight), 9/3, p.40
IRS ruling on SUB (auto type), 8/20, p.68
Inflation impact on buying power, 10/1, p.107
Social security to go up, 8/20, p.68
Sparkman bill, 7/9, p.60
States seek share of business income, 9/10, p.93

Technicians: See Engineers

Temperature Control:
Capacitrol-RCA plant, transistors, 12/17, p.91
How temperature affects strip, 10/1, p.164

Tin Plate:
Canners seek to cut costs (cut sheets to coils), 11/19, p.211

Titanium:
Airplane use small, 10/22, p.40
Big spurt in titanium: Cost comparison stainless — titanium, 12/17, p.58
Cheaper ore for titanium (ilmenite), 10/29, p.128
Companies expanding, 10/1, p.119
Companies processing, 12/24, p.27
Company formed, Allied Chemical-Kennecott, 12/31, p.54
Descaling titanium sheet, 12/31, p.62
Electrolytic (Kroll) process, 8/13, p.44
Extruders ready for volume business:
Firms, type of work (chart), 12/10, p.142
Titanium billets extruded, new methods, 12/17, p.100
Mill shipments, prospects, 12/24, p.27
Sawing data for 4-types, 10/8, p.100
Stress relief test at U.S. Gun Factory, 8/6, p.110
Three ways to weld titanium: Inert gas methods, 8/27, p.84
U.S. Industrial Chemicals plant, Ashtabula, 10/1, p.119

Toolrooms:
A toolroom goes job shop, 8/20, p.120
Pontiac's IBM tool control system, 10/1, p.127

Tool Steels:
Die material for extruding, 12/17, p.100
Hot work steel: Guide to hot work tooling, 9/24, p.116
Hot work steel: Tool steel forging press, 9/3, p.103
Now, tool steel extrusions, 7/9, p.92
Tool steel-industry report, 12/31, p.78

Tools & Dies:
Beryllium-copper cast dies, 7/30, p.116
Draw dies for appliance maker, 9/10, p.170
Measuring die wear and die life, forum, 9/3, p.104 and 11/5, p.132
Production ideas: Doing more mith short run dies, 9/3, p.79

Tools (Cutting):
Carbide licks a tough cut (GE Grade 55A with 350 tip) machines compressor valve plate, 11/19, p.166
Cemented oxide tools speed machining time, 8/20, p.130
Ceramics and carbides, both necessary, 10/22, p.92
Ceramic tool test, aluminum oxide, 9/24, p.131
Ford uses ceramics, 12/3, p.94
Machining aluminum on automatics, 10/29, p.135
Throwaway cutters gain, survey, 12/17, p.98

Toys:
Metal toys, industry report, 9/10, p.109

Tractor Shovel: See Materials Handling

Trade Fair:
Yugoslavia fair, 9/10, p.111

Traffic Control:
DoAll system, 12/3, p.91
Let traffic managers manage, 11/26, p.68
Warner & Swasey: A toolroom goes job shop, 8/20, p.121

Training:
Cross engineering course, 7/23, p.49
Gage block inspection course, 8/6, p.130
International Steel engineer training, 10/29, p.82
Skilled labor scarcity, use skills you have, 7/16, p.93

Transformers:
Westinghouse-Sharon test center, IBM computer, 11/5, p.126

Transistors:
RCA plant production line: Manufacturing under a microscope, 12/17, p.91

Transportation:
Let traffic managers manage, 11/26, p.68
Shippers' Baedeker planned, 9/24, p.72

Trucks, Trailers:
Aluminum dump trailer, TO, 8/6, p.109; 12/21, p.57
Anodized color for trucks, 7/30, p.44
Haulaway trailer industry, 10/15, p.83

Tubing: See Pipe, Tubing, Fittings

Tunnel Cooling:
Tunnel cooling on sheet bluing line saves space problem, 7/23, p.85

Turbine Blades:
Superalloys for 1200°F, 7/16, p.138
Superalloys for cold forging, 12/3, p.126

Turbines:
Gas turbine makes U.S. debut, Mark TA, 8/6, p.116
Gas turbines, government interest, 9/17, p.98
Turbines welded, one-piece, 12/10, p.182

U

Ultrasonics:
Clean to the last micron (guided missiles, airborne precision parts), 8/27, p.92
Flaw detective transducer, TO, 7/16, p.131
Flaw simulator aids trainees in testing, 9/17, p.194
Industry report: Uses broaden, 10/1, p.116
Soldering with ultrasonic power, 12/17, p.90
Ultracleaning with ultrasonics (Saginaw Steering Gear), 7/9, p.90
Ultrasonic test by immersion method (Alcoa lab), 8/27, p.94

Unions: See Labor

University of Michigan:
Studies steel expansion financing, 8/20, p.68

Uranium:
Calumet & Hecla source, N. Mex., 12/3, p.74
Market forecast by 1960, 11/12, p.73
Production outlook, 12/24, p.28
Uranium mills by 1958, present production, 12/31, p.31

V

Vacuum:
Allegheny Ludlum induction vacuum melt unit, 7/9, p.81
Investment casters eye the vacuum: Cost comparison in air, argon and a vacuum, 7/9, p.104; refractories used to line furnaces, 12/17, p.90

Toward bigger gas-free ingots (vacuum stream degassing equipment), 11/12, p.144
Vacuum melt catches on: Producers, larger furnace trend, sales, 12/31, p.32

Valves:
Aluminum valve, die-cast zinc core, 11/5, p.135
Industrial valve shipments, 10/22, p.50

Vending Machines:
In-plant food service, 12/24, p.43

Ventilators:
Roof ventilators solve space problem, 12/17, p.96

Virginia Polytechnic Institute:
Electroplate aluminum on steel, TO, 7/2, p.65

Voting:
State laws for time-off to vote, 8/20, p.67

W

Wages:
AIC: Average settlements, Cleveland area: 7/2, p.39; 9/3, p.39; 9/10, p.100
AIC: Average settlements in 1956, 12/10, p.91
Automatic increases foreseen, 12/24, p.27
BNF: Wage increase survey, 7/23, p.38
Differentials in wages: Where's escape, 10/22, p.45
Differentials, UAW survey, 11/5, p.59
Executives, top wages, 10/15, p.73
Industrial relations-personnel men, 8/6, p.72
Salesmen, 9/17, p.97
Steelworkers, 3-year contract set: Chart, wage scales for '56-'57-'58, 8/6, p.78
Steelworkers' Operation Mop Up (non-basic contracts), 9/17, p.85
Steel 3-cent cost-of-living increase, 12/31, p.21
Supervisors, 12/10, p.101

Warehousing, Distribution:
Aluminum castings, where they go (markets), 11/12, p.82
Aluminum (wrought) mill products, 11/5, p.69
Finished steel distribution: ASWA estimates, 12/24, p.33
Stainless steel, who uses, market classifications, 8/13, p.139
Stainless steel markets, mill shipments, 11/26, p.63
Steel distribution shift, 9/24, p.149
Steel stocks, 7/9, p.47
Warehouse steel freeze (BDSA), 7/16, p.83; order modified, 7/23, p.31 and 7/30, p.52; controls may be lifted, 8/6, p.84

Wastes:
Armco treatment and re-use of mill scale wastes, 9/17, p.174
Blaw-Knox pilot plant test, acid disposal, 9/24, p.69

Water Tanks:
Armco clarification tanks: Good will on the water front, 8/20, p.124
Rheem glass lines its heaters, 10/15, p.124

Watertown Arsenal:
Hot hardness testing, 9/10, p.143

Wayne State University:
Industry trains its own, 11/19, p.126

Welding (Arc):
Lincoln Foundation design awards, 12/10, p.183
Weld faster with CO_2 shielded arc welder (Walker Mfg.), 10/15, p.126
Weld fast with CO_2 head, 200-in. per. min., TO, 10/22, p.77

Welding (Braze):
Welding aluminum to copper (Kaiser), 9/24, p.122

Welding (Gas):
Three ways to weld titanium: Inert gas methods, 8/27, p.84

Welding (General):
Inland Steel offices: This building is welded, 12/24, p.65
Turbines welded (B-L-H), 12/10, p.182
Warm weld for aircraft parts, TO, 12/17, p.85

Welding (Pressure):
Cold-welding tools use pressure to join aluminum-copper tubing, strip and wire: Welds without heat, 9/3, p.83

Welding (Resistance):
Auto bumper guards, 11/5, p.146
Kaiser pipe mill, continuous welding, 9/10, p.148

Welding (Stud):
Nelson stud weld shells corn, 7/9, p.102

Welding Equipment:
U.S. industry, 11/12, p.74

Weldments:
Industry report, 11/5, p.77
New design simplifiers weldment (pedestal for cutter grinder): Based on prize-winning article, 11/19, p.180

West Coast:
Nuclear engineering plants, cost estimates, 7/9, p.47
U.S. Industries Buys Western Design (diversifies), 9/10, p.105

Wire:
Aluminum coating steel wire, 12/3, p.128
Drawn wire production, industry report, 9/10, p.209
Save with shaped wire, 7/16, p.132
Steel pails used in packaging of magnet wire, 7/9, p.108
Wire springs embedded in sponge, TO, 7/23, p.77

Wire Association:
Elects, B, 11/26, p.86
Meeting: Aluminum coating, oil tempering discussed, 12/3, p.128

Wire Reinforcement Institute:
Elects, B, 7/2, p.63

Wrenches:
Impactool for bolt tightening, 11/5, p.123

XYZ

X-Ray:
Crystallographic x-ray for atomic alloys, TO, 12/3, p.119
Solar Aircraft: X-ray team breaks bottleneck, 7/2, p.66
X-ray fluorescent measures metal coat, TO, 8/20, p.115

Zinc:
Zinc consumption, 10-year forecast, 11/5, p.68

Zirconium:
Bureau of Mines reclamation, 10/29, p.86
Cheaper zirconium, TO, 12/10, p.141
Kennecott pilot plant, Bedford, 8/27, p.53
More zirconium use coming, where it will go, 7/9, p.58

COMPANY INDEX

A

Abaco Industries Inc.:
Electronic erosion, machine, IE, 10/1, p.254

Abrasive Machine Tool Co.:
Abrasive grinder, waist-level controls, 7/2, p.87
Unit graduates tool dials, IE, 9/24, p.138

Ace Drill Corp.:
Drill blanks, IE, 10/29, p.148

ACF Industries Inc.:
Expands for nuclear work, 8/27, p.76
Flatcar piggyback: Convert-a-Frate, 12/3, p.85

Acme Precision Products Inc.:
Merges with Cal-Tronics, 10/22, p.73

Acme Steel Co.:
Amortization filed, 12/3, p.83
Buys Newport Steel, 8/6, p.82; 9/17, p.92; 9/24, p.66
Facilities planned near Riverdale, Ill., plant, 9/17, p.92

Adamas Carbide Corp.:
Israel contract for plant, B, 11/26, p.85

Addressograph-Multigraph Corp.:
Buys Ralph Coxhead, 8/13, p.86

Admiral Corp.:
Enlarging appliance plant, B, 9/10, p.128

Advance Spring Corp.:
Sold, B, 7/16, p.109

Advance Stamping Co.:
Moves Detroit plant, B, 10/22, p.74

Aeroquip Corp.:
Buys General Logistics, B, 9/10, p.132
Teflon hose coupling, TO, 8/27, p.79

Aetna Industrial Corp.:
Buys Graton & Knight plants, 9/3, p.74

Aget Mfg. Co.:
Dust collector, IE, 12/31, p.74

Air-Hydraulics Inc.:
Press, IE, 8/13, p.124

Air Products Inc.:
Buys Steele Gases, 12/17, p.82
Economics of oxygen, 11/5, p.114

Air Reduction Co.:
Los Angeles air liquefaction plant, 7/23, p.65
Moves offices, B, 7/2, p.63

Air Reduction Sales Co.:
Bronze welding rods, IE, 9/24, p.140
Buys Jackson Products, B, 12/31, p.55
Easyarc electrode, IE, 9/10, p.176
Oxygraph carries automatic equipment, IE, 11/12, p.157
Welding regulators, IE, 7/30, p.127
Three ways to weld titanium, 8/27, p.84

Aircraft Products Co.:
New divisions, 10/22, p.73

Ajax Electric Co.:
Salt bath for tools, 12/17, p.85
Salt bath furnace for Mueller, TO, 8/13, p.99

Ajax Flexible Coupling Co. Inc.:
Adds to Westfield plant, 8/27, p.75

Alabama Metallurgical Corp.:
Formed to produce magnesium, 7/23, p.112

Alco Products Inc.:
Lead in steel forgings, new technique, 8/13, p.100

Allegheny Ludlum Steel Corp.:
Buys Repath Inc., 8/13, p.85
Cadmium plated toolholders, IE, 12/3, p.155
Chrome draw dies, 9/10, p.170
Induction vacuum melt furnace at Watervliet, 7/9, p.81
Installed furnace to melt zirconium, 10/29, p.84
Tool steel extrusions, Ugine-Sejournet process, 7/9, p.92
Tool steel forging press (Dunkirk Wks.), 9/3, p.103

Allegheny-Oberg Inc.:
Expands, B, 10/22, p.73

Allegheny Steel Band Co.:
Strap cutting dispenser, IE, 7/23, p.102

Allied Chemical & Dye Corp.:
Forms company with Kennecott, 12/31, p.54

Allis-Chalmers Mfg. Co.:
Boring mill machines turbine-generator, pic., 12/3, p.91
Buda railroad supply line sold, B, 7/30, p.80
Crane-mounted drill, 11/5, p.138
Licenses nodular iron process, 8/6, p.89
Nodular iron process new, 10/22, p.83

Alloy Precision Castings Co.:
Leases plant, B, 7/9, p.82

Alloy Products Co.:
Leases space, B, 9/3, p.74

All-State Welding Alloys Co.:
Expansion completed, 10/22, p.49

Alpha Metals Inc.:
Chicago branch, B, 12/17, p.81
Ripple Round anode, IE, 12/31, p.72

Alter Co.:
Buys Davenport Besler, B, 8/13, p.86

Aluminium Ltd.:
Aluminum capacity, shipments to U.S., 12/31, p.27

Aluminum Co. of America:
Favorite, L. P., BDSA post, 9/10, p.106
Labor contract issues, 7/23, p.38
Strike called, 8/6, p.71
Ultrasonic testing by immersion method, J. B. Morgan, 8/27, p.94

Alva Allen Industries:
Punch press, IE, 8/6, p.135

AMF Atomics Inc.:
Canadian contract, B, 9/10, p.127
German research reactor, 7/2, p.45

American Blower Corp.:
Airfoil fans, IE, 9/24, p.136
Fluid drive, IE, 7/23, p.102
Water chillers, IE, 9/10, p.176

American Bosch Arma Corp.:
Another look at nitriding: H. E. Boyer, 8/20, p.134
Dedicates plant, B, 7/2, p.62
Moves headquarters, B, 8/27, p.76

American Brake Shoe Co.:
Denison division, 10/8, p.90
Enters specialty casting field, 12/17, p.81
Mexican subsidiary, 8/13, p.61
Railroad divisions united, 12/31, p.54

American Brass Co.:
Cleveland warehouse, B, 11/5, p.96
Renames Waterbury div., 9/10, p.127
Mattoon plant, hose and tubing, 7/30, p.44

American Broach & Machine Co.:
Vertical broach, IE, 9/17, p.200; 9/24, p.140

American Buff Co.:
Cloth buff, IE, 9/24, p.140

American Can Co.:
Buys Bradley Container, B, 10/15, p.104
Builds in Texas, 10/29, p.85; 11/5, p.93
Opens Oregon plant, 7/30, p.77
Plant site, Hammond, Ind., 8/27, p.75

American Chain & Cable Co. Inc.:
Abrasive cutter, IE, 10/1, p.264
Electric hoist, IE, 12/31, p.73
Expands, 12/17, p.54
Hardness testing: V. E. Lysaght, 7/2, p.72
Page Steel welding wire dispenser, IE, 7/16, p.160
Wilson hardness tester, IE, 10/1, p.254; 12/31, p.74
Wright Hoist crane control, 9/10, p.165

American Chemical Paint Co.:
Buys Foster, B, 10/15, p.104

American Coils Co.:
Moves, B, 12/17, p.81

American Emblem Co.:
Name plate, shipping tag sales, 8/27, p.50

American Gage & Machine Co.:
See Walsh Press & Die Co.

American Gas Furnace Co.:
Heat treat furnace, IE, 10/1, p.261

American Hoist & Derrick Co.:
Buys Lebus Rotary Tool, B, 9/10, p.132
Forms Seattle sub., B, 11/19, p.130

American Lava Corp.:
Deburrer, IE, 9/24, p.143

American Lubricants Inc.:
Buys Machwirth Bros., B, 9/17, p.130

American Machine & Foundry Co.:
Contracts ballistic work, 8/20, p.101
Huntsville, Ala., underground limestone plant, 12/24, p.36
Lab Center plans, B, 11/5, p.96

American Motors Corp.:
Air cooled, lightweight engines, 8/20, p.88
Builds cargo trailer, 9/3, p.60
Car sales pick up, 12/3, p.94
Financial statement, 8/27, p.62; 12/24, p.48
Fuel injection system, 12/10, p.112
Rambler, separate line, 7/2, p.48

American Optical Co.:
Buys Fecker Inc., B, 9/17, p.127

American Pulley Co.:
Buys materials handling div., B, 11/5, p.99
Lift trucks, IE, 10/22, p.107
Van Norman buys stock, 8/20, p.112

American Radiator & Standard Sanitary Corp.:
Georgia office, B, 10/29, p.107
New plant, N. Y., B, 10/1, p.146

American Research Corp.:
Builds, B, 7/2, p.61

American Screen Products Co.:
Forms subsidiary, 12/24, p.61

American Sealants Co.:
Loctite sealant for fasteners, 8/13, p.104

American Smelting & Refining Co.:
Expands Perth Amboy facilities, 9/24, p.71
Federated smelter at Alton, Ill., 12/10, p.125
Lake Asbestos of Quebec, new subsidiary, 7/9, p.82
Rosin core solder, IE, 11/12, p.158
Solder fluxes, IE, 9/10, p.176

American Steel Foundries:
Bending machine, IE, 11/5, p.153
Diecasting press, IE, 8/13, p.128
Hydrolair press, IE, 9/10, p.188

American Tool Works Co.:
Radial drills, IE, 8/27, p.106

American Tractor Corp.:
Merger with Case, B, 9/24, p.98

Amertool Services Inc.:
S. A. machine tool outlet, 10/22, p.56

Amherst Mfg. Corp.:
Expands, B, 10/29, p.110

Amtea Corp.:
S. A. machine tool firm, 10/22, p.56

Anaconda Co.:
Pilot plant, alumina from clay, 10/15, p.186

Ansul Chemical Co.:
Fire extinguisher, IE, 10/15, p.154

Anthony Co.:
Buys Truck Crane, B, 12/17, p.82

Apex Electrical Mfg. Co.:
May merge with White, B, 8/13, p.86

Apollo Metal Works:
Prefinished metals, IE, 7/2, p.93

Applied Research Laboratories:
Spectrometer, IE, 10/1, p.261

Arcair Co.:
Cutting torch, IE, 12/24, p.75

Archer-Daniels-Midland Co.:
CO_2 core binder, color indicator, TO, 11/26, p.89

Arco Crown Cork & Cap Co.:
Leases Albany space, B, 12/3, p.112

Arcos Corp.:
Heating elements, IE, 7/23, p.102

Arcweld Mfg. Co.:
Creep tester, 10/29, p.143

Argus Cameras Inc.:
Sold, B, 12/10, p.136

Armco Drainage & Metal Products Inc.:
Adds fabricating plant, Springfield, Ill., 12/17, p.54
Amortization filed for Butler, Pa., 12/3, p.83
Expands in Middletown; builds Atlanta plant, 10/8, p.62
Mill scale wastes, safety and reuse, 9/17, p.174
Open-hearth added, 8/20, p.101; contract awarded, 10/8, p.65
Research lab, 11/12, p.110
Sheffield buys Ford property, 11/12, p.110
Sheffield: Crane to floor radio, 7/30, p.106
Sheffield expands at Houston, 9/17, p.92
Sintering plant, 7/16, p.84
To make galvanized steel equipment for railroads. German partnership, 8/13, p.44
Vane axial fans, TO, 7/16, p.131
Water clarification tanks (good will on the water front) 8/20, p.124

Aro Spot Welders: See Guthery Machine Tool

Associated Spring Corp.:
Wallace Barnes: More strip from a Sendzimir, 7/16, p.142

Atlantic Steel Co.:
Merchant bar and rod mill, 12/3, p.107

Atlas Steels Ltd.:
Continuous casting, electronic recorders, 10/22, p.86

Code: B—*Briefs;* TO—*Technical Outlook;* IE—*Industrial Equipment*

Austenal Inc.:
Buys vacuum casting furnace, 12/10, p.125

Austenal Laboratories Inc.:
Renamed, B, 8/13, p.80

Automatic Electric (Canada) Ltd.:
Enlarges plant, B, 12/3, p.112

Automatic Molding Machine Co.:
Moves, B, 12/31, p.55

Automation Development Corp.:
Automatic feeder, IE, 11/5, p.156

Avco Mfg. Co.:
Appliances discontinued, 11/5, p.60
Research center, B, 12/10, p.130

Avildsen Tools & Machines Inc.:
Moves West Coast plant, B, 12/31, p.55

Axelson Mfg.: See U.S. Industries

Axelson Sales Co.:
Formed, B, 7/9, p.81

B

BMT Mfg. Corp.:
Barrel finishing unit, IE, 9/24, p.136

Babcock & Wilcox Co.:
AEC license, 10/1, p.108
Maritime contract, 10/8, p.73; 11/5, p.72

Bailey Meter Co.:
Wickliffe firm expanded, B, 10/1, p.144

Baird Associates-Atomic Instrument Co.:
Gas analyzer, IE, 10/15, p.150

Baker Bros. Inc.:
Facing machine, IE, 11/26, p.126

Baker-Raulang Co.:
Lift truck, IE, 11/5, p.160; 12/3, p.162

Baldwin-Lima-Hamilton Corp.:
Canmaking machine, IE, 9/10, p.192
Consolidates electronics div., B, 9/17, p.122
Engine lathe, IE, 7/2, p.88
Mechanical draw presses, IE, 7/16, p.159
Powdered metal compact press: Metal powder gets new look, 12/3, p.121
Powdered metal compacting press, IE, 9/17, p.197
Press makes cold bending test, IE, 7/9, p.109
Roller straightener, IE, 8/6, p.132
Torque wrench calibration, IE, 9/17, p.214
Turbines are welded, 12/10, p.182

Banner Metals Inc.:
Moves, B, 10/15, p.102

Barium Steel Corp.:
Sells Jacobs Aircraft, B, 12/31, p.54

Barksdale Valves:
Four-way valve, IE, 11/26, p.132

Barrett-Cravens Co.:
Guide-O-Matic tractor, IE, 11/5, p.163
Pallet truck, IE, 7/16, p.166
Portable elevator-all-welded frame, IE, 12/3, p.155

Bartlett & Snow Co., C. O.:
Moves Grindle div., B, 10/22, p.74
Nelson stud weld shells corn, 7/9, p.102

Barton Instrument Corp.:
Moves, B, 11/26, p.86

Basic Inc.:
Refractory gun repairs hot furnace, 10/29, p.130

Beaird Co., J. B.:
Shreveport furnace, B, 11/19, p.127

Beaver Pipe Tools Inc.:
Abrasive cutter, IE, 7/9, p.110; 7/16, p.174

Becher Pump Co.:
Model 40 pumps, IE, 9/10, p.194

Becker Crane & Conveyor Co.:
Formed, 10/15, p.97

Beckman Instruments Inc.:
Buys Watts Mfg., 12/17, p.82
Helipot moves to temporary offices, B, 10/1, p.148

Behr-Manning Co.:
Coated abrasive machinery, what's new, 11/12, p.134

Bekaert Steel Wire Corp.:
Organized, B, 8/13, p.80

Bell Aircraft Corp.:
Automation subsidiary, 8/13, p.79
Pantograph engraving for production job, 11/26, p.115

Bendix Aviation Corp.:
Buys Sheffield, 12/24, p.28; 12/31, p.29
Cermet for brakes, 9/17, p.105
Zenith Carburetor fuel injection, 12/10, p.112

Bendix - Westinghouse Automotive Air Brake Co.:
Buys Servel refrigeration div., 10/8, p.90

Bernard Epps & Co.:
Adds tube div., 9/24, p.71

Berry Bearing Co.:
Chicago branch, B, 12/3, p.110

Beryllium Corp.:
AEC contract, 9/24, p.71
Beryllium-copper dies cast, 7/30, p.117

Bethlehem Pacific Coast Steel Corp.:
Photoelectric cells speed mill production, 12/31, p.64

Bethlehem Steel Co.:
Aluminum coatings, TO, 12/3, p.119
Contracts:
Cold mill, 8/27, p.75
Pickling line, 10/8, p.62
Skin pass mills, 9/24, p.66
Merger: New markets for Bethlehem, potential capacities, 12/17, p.55
Steel expansion estimates (Homer), 12/3, p.74

Bidal Mfg. Co.:
Bar bender, IE, 11/19, p.196

Bingham-Herbrand Corp.:
Sold, 10/8, p.90; 12/10, p.136

Binks Mfg. Co.:
Air regulator, IE, 7/16, p.164
Paint heater, IE, 9/17, p.215

Birdsboro Steel Foundry & Machine Co.:
Diversifies to appliances, extrusion presses, 7/30, p.83
Equipment contract, U.S. Steel (Chicago), 8/27, p.75

Black & Decker Mfg. Co.:
Impact wrench, IE, 10/15, p.153

Blakeslee & Co., G. S.:
Degreaser, IE, 10/1, p.272
Renamed, B, 11/5, p.93

Blaw-Knox Co.:
Hauck, C. F.: Management at work, 11/26, p.67
Slag pot, pic., 11/26, p.85
Waste pickling acid disposal test, 9/24, p.69

Bliss Co., E. W.:
Acquires John Robertson Co., 8/13, p.86
Gears pressed, IE, 7/30, p.123

Boeing Airplane Co.:
Nitriding with liquid salt puts case on stainless, 8/6, p.115
Titanium production prototype, 11/26, p.85

Bogue Electric Mfg. Co.:
Silicon rectifier, IE, 8/13, p.122

Boice Gages Inc.:
Builds, B, 9/10, p.130

Borg-Warner Corp.:
Allison, BDSA post, 12/31, p.34
Buys Dittmer Gear, 11/12, p.112
Constructs plant, Ind., 12/24, p.60
Marvel-Schebler, fuel injection system, 9/24, p.80
Norge drawing dies, 9/10, p.170
York Corp. merger, 7/2, p.28

Borg-Warner International Corp.:
Licenses German firm, B, 10/29, p.115

Boston Gear Works:
Sales training program aids distributors, 7/16, p.86

Bostrom Mfg. Co.:
Energy expanded in driving, study, 7/2, p.48

Bradford Machine Tool Co.:
Manufacturing operations sold, 7/9, p.82

Braeburn Alloy Steel Corp.:
Hot tops (Feedex) increase ingot yield, 7/30, p.100

Brandes Press Co.:
Builds, B, 10/15, p.97; 11/5, p.93
Stamping press, IE, 10/29, p. 152

Brett-Guard Co.:
Saw table safety guard, IE, 8/27, p. 106

Bridgeport Brass Co.:
Metal laminates, TO, 11/19, p. 141

Briney Mfg. Co.:
Formed, B, 7/2, p.62

Brooks & Perkins Inc.:
Forms Alabama Metallurgical (magnesium), 7/23, p.112
Rocket sphere contract, Naval Research, 9/3, p.77
Rocket sphere satellite test, 10/15, p.120
West Coast unit, B, 8/13, p.77

Brooks Oil Co.:
Klingfast lube, IE, 9/17, p.210

Brown & Sharpe Mfg. Co.:
Combines sales with Nelco Tool, 8/27, p.76
New design simplifies weldment (pedestal for grinder): Fleury and McDermott, 11/19, p.180
Preventive maintenance, color-coded lube, routing machine physicals, 10/8, p.104
Screw machine, IE, 12/31, p.71

Brown-Brockmeyer Co.:
Gearmotors, IE, 11/19, p.198

Brown Fintube Co.:
Forms Brown Thermal Dev., subsidiary, 12/24, p.60

Brown Industries Inc.:
Sold, B, 10/22, p.74

Brush Beryllium Co.:
AEC contract, 10/15, p.74

Brush Electronics Co.:
Analog computer, 12/31, p.61

Bryant Chucking Grinder Co.:
Vertical cam grinder, IE, 7/9, p.110

Buck Tool Co.:
Dustproof chuck, IE, 10/8, p.121

Bucyrus-Erie Co.:
Richmond, Ind., plant (well drilling machines) 12/3, p.83

Budd Co.:
Licenses Canadians, B, 9/17, p.119

Buffalo Forge Co.:
Radial blade fan, IE, 10/22, p.105
Sky-Vent line, 12/17, p.96

Buffalo-Springfield Roller Co.:
Sold, 11/12, p.112

Buffalo Steel Corp.:
Expands galvanizing facilities, 9/24, p.71

Bullard Co.:
Buys Hydra-Feed, 12/31, p.66
Foundry facilities, new plant, 7/2, p.78

Burroughs Corp.:
Builds factory, 10/29, p.84
Motivation, morale programs, 9/24, p.111
Plant for Scotland, 9/10, p.103

Busch Co., J. C.:
Coil positioning, IE, 8/6, p.141

C

Cal Metal Pipe Corp.:
Installs mill, 9/24, p.71

California Wrought Iron Co.:
Factory plans, B, 12/3, p.108

Calumet & Hecla Inc.:
Canadian tube mill, B, 8/6, p.105
Uranium ore deposit, N. Mex., 12/3, p.74
Wolverine: Smith BDSA post, 12/17, p.60
Wolverine Denver branch, B, 11/19, p.127
Wolverine Tube enlarges Ala. plant, 10/1, p.119
Wolverine Tube orders press at Detroit, 7/2, p.61

Cameron Iron Works Inc.:
Split die forging solves a problem: D. D. Turner, 11/26, p.94

Canada Vulcanizer & Equipment Co.:
Copper tubing factory, B, 11/5, p.96

Canadian Steel Foundries Ltd.:
Formed, B, 10/1, p.144

Cannon Electric Co.:
Leases space in Salem, B, 11/19, p.127

Capitol Products Corp.:
Merged with Read Standard, B, 11/19, p.135

Carbide & Carbon Chemicals Co.:
Engineering building, B, 12/10, p.130

Carborundum Co.:
Adds silicon carbide furnace, Wash., 7/2, p.61; 8/27, p.75
Curtis Machine double-side abrasive grinder, IE, 11/19, p.188
Curtis Machine sheet polisher, IE, 12/17, p.107
Silicon carbide: A material with a big future, 11/5, p.106

Cargill Detroit Corp.:
Distribution system for machine tools, IE, 11/26, p.123
Shaft straightener, IE, 7/9, p.110

Carlson Co.:
Spring tester, IE, 8/6, p.142

Carpenter Steel Co.:
Britton, A. A.: Management at work, 7/16, p.91
Buffalo warehouse enlarged, B, 10/15, p.100
Houston warehouse, B, 9/3, p. 73; 12/10, p.125
Plastic pipe, IE, 10/15, p.150

Case Co., J. I.:
Closes Anniston plant, B, 7/23, p.70
Merger with American Tractor, B, 9/24, p.98

Caspers Tin Plate Co.:
Buys Century Display, B, 8/20, p.112
Buys Olive Can, B, 11/5, p.99

Catalina Steel Co.:
Moves, B, 7/30, p.88

Caterpillar Tractor Co.:
Buys Englehart Mfg., 9/10, p.132

Centrifugal Casting Machine Co.:
Centrifugal casting moves ahead: Nathan Janco, 12/24, p.72

Chain Belt Co.:
Buys General Road Machines, B, 10/29, p.115
Maintenance tips for roller chains, TO, 9/3, p.77

Chambers Mfg. Corp.:
Opens plant, B, 7/16, p.112

Chance Vought Aircraft Inc.:
Fluoroscope detects casting flaws, 8/20, p.115
Guided missile contract, 8/6, p.84

Channel Master Corp.:
Overhead crane moves and weighs tubing, 11/19, p.169

Chappel & Co., L. C.:
Ceramic cutting tool, IE, 7/2, p.88

Char-Lynn Co.:
Cast valve coring, 11/5, p.135

Chart-Pak Inc.:
Moves, 12/17, p.57

Chase Brass & Copper Co. Inc.:
Copper sheets, IE, 12/3, p.159

Chem Industrial Co.:
Aluminum paint, IE, 11/5, p.157

Chesapeake Industries Inc.:
Moves, B, 12/17, p.82

Chesapeake & Ohio Railway:
Buys Slick Airways, B, 12/24, p.61

Chicago Rawhide Mfg. Co.:
Way wipers, IE, 9/10, p.192

Chicago Vitreous Corp.:
Sold, B, 12/17, p.82

Chrysler Corp.:
Air conditioner facilities, 8/6, p.106
Airtemp cooling unit sales, 9/3, p.56
Airtemp transfer machine, 8/20, p.130
Business with suppliers, 7/2, p.28
De Soto safety tires, 10/8, p.76
Dodge revamps assembly line, 10/22, p.59
Earnings, 1st half, 8/13, p.64
Flying saucer technique, aluminum disc test, 10/22, p.60
Gorey Jr., C. B., Management at Work, 11/19, p.109
Hobber machines sector gears, 11/12, p.147
Indianapolis: Hydraulic presses expedite small assemblies, 9/3, p.88
Jupiter guided missile contract, 7/9, p.65
Management appraisal system, 12/31, p.41
Piston foundry expanded, 8/27, p.62
Radial drawforming, 10/22, p.77; 10/29, p.132
Short run dies aids production, 9/3, p.79
Stock purchasing for salaried employees, 7/16, p.95
Technical Center (site purchased), 8/13, p.64
Torsion-Aire equipment, 11/19, p.113
Transmission plant: Automation for automatics, 11/26, p.71

Circle Wire & Cable Corp.:
Aluminum conductor field, 10/29, p.110

Circo Equipment Co.:
Degreaser, IE, 8/20, p.146; 9/10, p.197
Forms subsidiary, B, 9/10, p.130
Ultrasonic cleaning equipment for Saginaw Steering Gear Div., 7/9, p.90

Circuit Instruments Inc.:
Moves, B, 10/1, p.148

City Machine & Mfg. Co.:
Sold, B, 11/19, p.130

Clapp & Poliak Inc.:
Plant equipment study, 7/2, p.28

Clark Bros. Co.:
Expansion, 12/17, p.54
Gas turbine-Mark TV introduced, 8/6, p.116

Clark Equipment Co.:
Towing tractor, IE, 12/31, p.72

Clearing Machine Corp.:
Saf-Strik control, IE, 12/3, p.155
Flexetrol control, IE, 11/5, p.158
Modular presses, standard units easy for change-over, 10/22, p.92

Clearview Co.:
Name plate press, IE, 9/24, p.143

Cleveland Automatic Machine Co.:
Die-caster, IE, 9/10, p.176

Cleveland Brass Mfg. Co.:
To buy Glauber Brass plant, 12/17, p.82

Cleveland Cap Screw Co.:
Micro sizes, IE, 9/24, p.136

Cleveland Crane & Engineering Co.:
Press brake, IE, 10/8, p.117

Cleveland Pneumatic Tool:
Strike issues, 7/9, p.56
Strike settled, 7/23, p.39

Clifford Mfg. Co.:
Lathe, close tolerance, 11/5, p.136

Climax Molybdenum Co.:
Michigan hi-temp. symposium, 7/30, p.120
Moly-base alloys new, TO, 7/16, p.131
Prices advance, 9/3, p.129

Cold Metal Products Co.:
Calif. strip mill in operation, 10/8, p.89

Collins Machinery Corp.:
Abrasive saw, IE, 7/16, p.171

Colmonoy Corp.:
Brazing flux, IE, 8/6, p.136

Colonial Broach & Machine Co.:
Broach setup for locks, 11/19, p.178

Colonial Metals Co.:
Electronic conveyor pouring, TO, 8/6, p.109

Colonial Refining & Chemical Co.:
Floor paint, IE, 12/31, p.74

Colorado Fuel & Iron Corp.:
Amortization request, Claymont, Del., 12/3, p.83
Expands at Buffalo, 11/5, p.67
Wickwire steel operations rate, 9/10, p.215
Wire patenting furnace contract, 9/3, p.73

Colson Corp.:
Portable conveyors, IE, 10/8, p.119

Colton Co :
Expands, B, 12/3, p.108

Columbia-Southern Chemical Corp.:
Titanium ores in Liberia, 12/31, p.54

Columbia Transportation Co.:
Charters vessel, B, 11/26, p.86

Combustion Engineering Inc.:
Fabricates giant reactor vessel, 10/15, p.135
Reactor plant, submarines, 8/27, p.59

Commerce Oil Refining Corp.:
Fast write-off grant, 12/10, p.98

Commercial Contracting Corp.:
Beveridge: Management at Work, 8/20, p.83

Commercial Metals Co.:
Forms subsidiary, 12/24, p.61

Commonwealth Edison Co.:
Atom plant ok'd, 10/22, p.49

Commonwealth Engineering Co.:
Gas plating process, TO, 8/27, p.79

Concord Control Inc.:
Moves, B, 11/19, p.135

Cone Automatic Machine Co.:
Gets copying lathe rights, 12/24, p.60

Connor Spring Mfg. Co.:
Expands at San Francisco, 12/3, p.82

Consolidated Avionics Corp.:
New facilities, 9/10, p.105

Consolidated Diesel Electric Corp.:
Canadian subsidiary, 9/24, p.96
Japanese export license, 9/10, p.111

Consolidated Edison Co.:
Atomic plant, Peekskill, B, 10/8, p.89

Consolidated Electrodynamics Corp.:
Buys Castell, B, 12/17, p.82
Measures moisture in bases, TO, 12/3, p.119

Consolidated Foundries & Mfg. Corp.:
Buys WalMet, 7/16, p.112
Forms Crucible Mfg., 10/22, p.73
Forms Michigan Industries, 10/29, p.107

Continental Can Co.:
Buys Hazel-Atlas, B, 10/8, p.90
Buys Robert Gair, 11/12, p.115
Price boost, 10/8, p.56

Convair: See General Dynamics

Cooper Alloy Corp.:
Heat treat furnaces, 10/22, p.73

Cooper Development Corp.:
New name, B, 10/15, p.100

Copperweld Steel Co.:
Lesson in electrodes, 7/23, p.86

Corning Glass Works:
Solderless seal, TO, 7/30, p.91

Covel Mfg. Co.:
Surface grinder, , 10/22, p.106

Crane Packing Co.:
Lapping machine, IE, 7/9, p.116; 11/5, p.150

Croname Inc.:
New factory, B, 12/3, p.112

Cro-Plate Co. Inc.:
Wet blast unit, IE, 8/13, p.130; 11/12, p.166

Cross Co.:
Engineering training, 7/23, p.49
Transfer-matic, 159 operations, TO, 10/8, p.93
Transfer machine, IE, 8/6, p.140

Crouse-Hinds Co.:
Buys Surveyor Service, B, 10/8, p.90

Crowningshield-Harris Co. Inc.:
Sold, B, 7/9, p.82

Crucible Mfg. Corp.:
Organized, B, 10/22, p.73

Crucible Steel Co. of America:
Buys Vacuum Metals, 11/5, p.70
Capital funds for facilities, 12/3, p.83
Improvement program, titanium facilities, 7/2, p.62
Spring Div. moves offices, 12/31, p.55
Stainless in aircraft design: E. A. Loria, 11/5, p.142; 11/12, p.152

Cummins Engine Co.:
Diesel engine, IE, 7/2, p.92
Office workers negotiating committee, 8/13, p.52

Cunningham Co., M. E.:
Billet marker, IE, 9/17, p.220

Curry Air Shear Corp.:
Air-operated shear, IE, 11/19, p.190

Curtis Machine: See Carborundum

Curtiss-Wright Corp.:
Studebaker-Packard option, 8/6, p.92
Ultrasonic tester, IE, 11/12, p.164
Ultrasonic transducer, flaw detector, TO, 7/16, p.131

Curtiss-Wright Aeronautical Corp.:
Studebaker-Packard management, 8/20, p.87

Cyril Bath Co.:
Radial draw formers for Lockheed, 8/20, p.122; for Douglas, 12/3, p.136

D

Daffin Mfg. Co.:
Sells humidifier line, B, 10/29, p.112

Dalmo Victor Co.:
Radar antenna plant, B, 11/5, p.67

Danly Machine Specialties Inc.:
Extruding press, IE, 12/3, p.164

Darling Valve & Mfg. Co.:
Buys Canadian foundry, 8/13, p.85

Datamatic Corp.:
Computer market forecast, 9/24, p.59

Davey Compressor Co.:
Hydrovane, tank-mounted compressor, IE, 11/26, p.131

Dawn Mining Co.:
Adds uranium mill, B, 8/13, p.77

Day Co., George L.:
Spin test machine, IE, 10/8, p.124

Daystrom Pacific Corp.:
Offices - research - manufacturing, 9/10, p.105

Dayton Steel Foundry Co.:
Expands, 12/10, p.128

De Laval Separator Co.:
Coolant clarifier, IE, 11/26, p.134

Detrex Chemical Industries Inc.:
Processing units, IE, 9/10, p.194

Detroit Broach Co.:
Renamed, B, 8/6, p.106

Detroit Broach & Machine Co.:
Continuous broach, IE, 7/30, p.123
Hydraulic broach, IE, 9/17, p.218
Plant expansion, 10/29, p.84

Detroit Edison:
Roof ventilators, River Rouge plant, 12/17, p.96

Detroit Nut Co.:
Merges, B, 7/30, p.86

Detroit Power Screwdriver Co.:
Assembly machine, IE, 10/8, p.122
Sold, B, 12/3, p.116

Detroit Steel Corp.:
Sales program, operation grassroots, 12/17, p.121

DeVilbiss Co.:
L. A. branch enlarged, 12/17, p.81
Moves at Dallas, B, 10/1, p.141

Dexter Folder Co.:
Sheet metal feeder, IE, 7/9, p.117

Diamond Alkali Co.:
Acetylene plant at Houston, 10/15, p.71
Chrome plating additive, IE, 7/9, p.114
Expansion program, 10/15, p.97
Greene, BDSA post, 7/30, p.56
Sand binder, IE, 8/13, p.122

Diamond Mfg. Co.:
Forms affiliate, B, 9/3, p.73

Diamond Screw Products Co.:
Merges, B, 7/30, p.86

Dice Co., J. W.:
Automatic micrometer, IE, 9/24, p.138

Dittmer Gear & Mfg. Corp.:
Sold, 11/12, p.112

Dixon Crucible Co., Joseph:
Merges American Crayon, B, 12/3, p.116
Refractory kiln, B, 11/26, p.85

Do-All Co.:
How to saw titanium, 10/8, p.100
Sponsors gage block inspection course, 8/6, p.130
Traffic control system, 12/3, p.91

Doehler-Jarvis:
Diecasting operations, Stowe township plant, 7/30, p.77

Doerr Electric Corp.:
Motor frame, IE, 8/6, p.140

Dominion Bridge Co.:
Expansion program, 10/22, p.49

Dominion Structural Steel Ltd.:
Plans structural mill, B, 8/27, p.75

Donaldson Co.:
Die-cast air filter, 8/20, p.133

Dorr-Oliver Inc.:
Leases property, B, 9/17, p.124

Douglas Aircraft Co. Inc.:
Expansion program, 10/29, p.84
Forming matches mill output-spar caps: Farnham long mill and Hufford press, 12/31, p.69
Rubber forming gains accuracy (compression), 7/30, p.109
Wrap-around eases bending chores (radial stretch formers), 12/3, p.136

Dow Chemical Co.:
Expands, Louisiana, B, 11/5, p.67
Magnesium-thorium sheet (HK31A), TO, 8/27, p.79
Magnesium wheels for cars, 7/9, p.68
Purer magnesium produced, 12/3, p.74

Dravo Corp.:
Armco sintering plant contract, 7/16, p.84
Barges, contract, 10/22, p.49
Blaw-Knox mill equipment contract, 12/24, p.60
Lube systems, Mesta, 11/5, p.93

Dresser Industries:
Dresser Mfg. to build, B, 8/6, p.106

Drever Co.:
Automatic plate heat treating line, 11/26, p.92

Dudley Steel Corp.:
Calif. branches, B, 9/17, p.122

Du Pont de Nemours & Co., E. I.:
Atomic lab plans, 9/3, p.51
Grasselli plant, sulphuric acid, 12/3, p.91
Memphis plant expands, B, 11/19, p.127
Richmond plant, 10/8, p.65
Titanium sheet descaled: W. J. Barth, 12/31, p.62
Titanium symposium, 12/17, p.58

Durant Tool Supply Co.:
Moves, B, 10/15, p.102

Dust Suppression & Engineering Co.:
Moves offices, B, 9/10, p.128

Dwight-Lloyd: See McDowell Co.

Dykrex Corp. of America:
Roughing machine, IE, 9/24, p.143

E

Eagle-Picher Co.:
Buys Chicago Vitreous, 12/17, p.82

Eastern Brass & Copper Co.:
Converts to custom mill, pricing program, 7/2, p.62

Eastern Mining & Smelting Co.:
Plans refinery, B, 8/20, p.104

Eaton Mfg. Co.:
Expands axle division, 10/8, p.76
Expands dynamatic division, 10/22, p.49
Welds auto bumper guards, 11/5, p.146

Edgewater Steel Co.:
Moves Chicago office, B, 12/10, p.133
Sells Tracy Kitchens Div., 10/8, p.89

Edison Inc., Thomas A.:
Guide for better profits: Oliver speaks before NICB, 10/1, p.117
Merges, B, 10/22, p.74

Elastic Stop Nut Corp. of America:
Hexagonal locknuts, IE, 10/8, p.121
Spline nut, IE, 7/16, p.168

Electra Motors Inc.:
Worm gear reducer, IE, 10/22, p.106

Electric Regulator Corp.:
Buys regulator line, B, 8/20, p.111

Electric Steel Foundry Co.:
Hydraulic press, IE, 9/24, p.140

Electric Storage Battery Co.:
Battery trays, IE, 8/20, p.144
Buys Dibb Mfg., 11/5, p.99
Canadian plant plans, B, 11/19, p.130
Emergency lighting, IE, 11/26, p.131
Grid alloys for battery, IE, 7/2, p.88

Electrical Mfg. Co.:
Buys pole line div., B, 7/23, p.68

Electromark Corp.:
Electrolytic marking, 10/15, p.139

Electro Metallurgical Co.:
Brennan address: Cheaper ore for titanium, 10/29, p.128
Forms by-products div., B, 11/5, p.93
Moves advertising dept., 7/16, p.117
N.J. sales office, B, 11/12, p.107

Electro Refractories & Abrasive Corp.:
Installs kiln for outsized crucibles, B, 7/2, p.61
Price boost, 10/8, p.56

Elevator Engineering Co.:
Buys Minnich, B, 10/29, p.116

Elgin National Watch Co.:
Microweld, TO, 7/16, p.131
Miniaturization, 7/23, p.79

Elliott Co.:
Gearmotors, IE, 8/6, p.138
Integral motors, IE, 9/24, p.136

Elmes Engineering: See American Steel Foundries

Elwell-Parker Electric Co.:
Fork lift truck, IE, 10/15, p.148
Ram trucks, IE, 7/16, p.163; 10/15, p.150

Emergency Steel Service Corp.:
Changes name, B, 11/26, p.86

Emhart Mfg. Co.:
Dieing machines, progressive dies, Henry & Wright Div., IE, 8/27, p.101

Emsco Mfg. Co.:
Sold, B, 11/19, p.132

Engleberg Huller Co.:
Abrasive belt grinder, IE, 7/30, p.127
Finish grind with a wet belt, 8/13, p.114
Rotary belt grinder, IE, 10/29, p.150

Enos & Sanderson Co.:
Warehouse expansion, B, 12/10, p.130

Enthone Inc.:
Scale remover, IE, 10/22, p.106

Erie Foundry Co.:
Forging press-electromagnetic controls, IE, 11/12, p.157
Rigidrop, gravity hammer, IE, 9/17, p.216

Erie Mining Co.:
Giant stacker, 9/17, p.194

Erie Strayer Co.:
Clamshell bucket, IE, 7/16, p.160

Eriez Mfg. Co.:
Vibratory feeder, IE, 11/19, p.194

Ernst Steel Corp.:
Formed, B, 10/29, p.110

Essley Machinery Co., E. L.:
Nissen, BDSA post, 8/6, p.84

Etco Tool Co.:
Changes name, B, 11/19, p.130

Euclid Machinery: See General Motors

Everlube Corp.:
Temperature indicating paint for heat treating, TO, 12/3, p.119

Ex-Cell-O Corp.:
Acquires firms, 12/31, p.55
Boring machine mills auto parts, 7/30, p.114
Broach for road equipment, TO, 9/3, p.77
Index machine, IE, 11/19, p.198
Precision borer, IE, 8/27, p.106
West Coast plant, 8/20, p.104

Exomet Inc.:
Expands plant, 8/27, p.49

Expert Automation Machine Co.:
Forming machine, IE, 11/5, p.150
Transfer unit, 5-stations, IE, 8/20, p.143

Expert Welding Machine Co.:
Index welder, IE, 7/9, p.112; 12/3, p.156
Projection welder, IE, 9/17, p.202

Explorers Alliance Ltd.:
Plant smelter in Mexico, B, 12/3, p.110

F

Fab-Weld Corp.:
Buys Hygrade Atlas plant, B, 11/12, p.107

Fairbanks, Morse & Co.:
Electronic scales, IE, 8/13, p.121

Fairfield Mfg. Co.:
Annealing with superfast cooling option: L. E. Alban, H. J. Bates, 12/3, p.150
Enlarges gear plant, B, 8/13, p.77

Falcon Tool Co.:
Chamfering tool, IE, 11/5, p.148

Falls Industries Inc.:
Heat exchanger, IE, 8/27, p.106

Famco Inc.:
Adds to plant, B, 9/3, p.74

Fansteel Metallurgical Corp.:
Builds in Oklahoma, 9/24, p.71
Builds tantalum-columbium plant, 8/27, p.53

Farrel-Birmingham Co. Inc.:
Moves roll grinder offices, 10/15, p.102

Fastcut Tool Co.:
Formed, B, 7/16, p.109

Fauver Co. Inc., J. N.:
Conveyor lubricator, IE, 10/22, p.110

Federal Machine & Welder Co.:
Jetliner, tail spotwelded, TO, 11/26, p.89
Expands, B, 7/2, p.62

Federal-Mogul-Bower Bearings Inc.:
Merges National Motor Bearing, 8/13, p.85

Federal Products Corp.:
Recording gage, IE, 11/5, p.154

Federated Metals: See American Smelting

Feedall Inc.:
Automatic feeder, IE, 10/22, p.108
Feeders, IE, 12/31, p.72
Hopper feeder, IE, 10/29, p.152
Transfer conveyor, IE, 8/27, p.106

Fenn Mfg. Co.:
Turk's-head model, IE, 10/1, p.267
Vertical rolling mill, IE, 9/24, p.135

Fenwall Inc.:
Pipe oven heater control, 7/16, p.155

Ferguson Co., Harry J.:
Gravity conveyor, IE, 10/15, p.148

Ferguson Machine & Tool Co.:
Renamed, B, 10/29, p.112

Ferro Corp.:
Buys Patterson Foundry, B, 10/8, p.90

Fine Tubes Ltd.:
Buys Moray-Engineering, B, 11/26, p.86

Finn & Co. Inc., T. R.:
Aeronautical div., 8/20, p.112

Firth-Loach Metals Inc.:
Cemented carbides, IE, 8/13, p.122
Expands, B, 11/12, p.107

Firth Sterling Inc.:
Buys research facilities, B, 8/20, p.112
Firthite NHA carbide, IE, 12/17, p.108

Fischer & Porter Co.:
Kaiser contract for curtain wall panels, 8/13, p.78

Flexonics Inc.:
Merges, B, 12/17, p.82

Fluor Corp.:
Contracts for crude oil handling facilities, 8/27, p.76

Fluor Corp. of Canada Ltd.:
Plant contract, 10/29, p.107

Flynn & Emrich Co.:
Core oven equipment, B, 11/12, p.107

Follansbee Steel Corp.:
Buys product line, B, 7/30, p.86

Food Machinery & Chemical Corp.:
Buys Hudson-Sharp, B, 9/17, p.127

Foote Bros. Gear & Machine Corp.:
Reducers, IE, 7/23, p.101
Variable speed drive, IE, 9/10, p.176

Foote Mineral Co.:
Buys Cold River mill, 12/17, p.81

Ford Meter Box Co.:
Ford, R. V., BDSA post, 9/24, p.72

Ford Motor Co.:
AMA membership, 9/17, p.106
Aluminum casting plant, Ala., 10/1, p.108 and 10/15, p.75
Aluminum casting plant, furnace orders, 11/5, p.93
Assembly plant, Mo., 12/24, p.60
Assembly plant, Lorain, 7/23, p.52; 12/10, p.112
Automation: D. S. Harper report, 10/15, p.116
Bumper plating lines, 7/9, p.68
Carburetor lab tests flow of fuel, 7/30, p.64
Ceramic tools, transmission plant, 12/3, p.94
Consolidates Continental and Lincoln Div.s, 7/30, p.64
Earnings 1st half, 8/13, p.64
Economist Hitchings views, 9/3, p.59
Expands Atlanta assembly plant, 8/6, p.92
Expands Chester, Pa., plant, 7/16, p.96
Expansion financing, 8/27, p.62
FSB raises capital fund rate, 8/20, p.67
Hardtop sedan, 10/1, p.128
Hourly employment to rise, 9/17, p.86
Mercury's Turnpike Cruiser sets '57 style, 7/28, p.61
Model changeover starts, 7/23, p.31; 11/19, p.176
Model "E" introduced soon, 8/20, p.68; 12/24, p.38
Model E, own engine, 11/26, p.51
Nance appointment, 10/22, p.40; 12/24, p.38
Piston engine noise study, 8/6, p.92
Ranchero, car-truck combine, 12/24, p.48
Specifications, standards control of metallurgical requirements, 11/26, p.117

Fort Worth Steel & Machinery Co.:
Forms new dept., B, 11/19, p.127

Fosdick Machine Tool Co.:
Sold, 11/12, p.112

Foster Transformer Co.:
Heat conducting compound, TO, 7/16, p.131

Foster Wheeler Corp.:
One truck does the work: Traveloader unloads boxes, 10/22, p.99

Fostoria Pressed Steel Corp.:
Heating equipment for suspended ovens, 9/10, p.174

Fram Corp.:
Adds to plant, B, 11/12, p.85

Franklin Balmar Corp.:
Merged into parent firm, 8/13, p.86

Franklin Research Corp.:
Buys five firms, B, 11/26, p.86

Fromson Orban Co. Inc.:
Importers, new look, 11/12, p.89

Fruehauf Trailer Co.:
Antitrust charges (FTC), 9/3, p.47
Builds in Canada, B, 9/17, p.127
Haulaway trailer business, 10/15, p.83
Revises sales forecast, 8/6, p.71

Fuller Mfg. Co.:
Expands transmission plant, 8/20, p.111

Fullerton Steel & Wire Co.:
Milwaukee warehouse, 10/1, p.144

Funk Aircraft Co.:
Rebuilds plant, B, 9/24, p.98

Furane Plastics Inc.:
Adhesive, IE, 12/31, p.72

Fyrepel Products Inc.:
Garment protects in furnace maintenance, TO, 7/23, p.77

G

Gar-Bro Mfg. Co.:
Lifting hook, IE, 7/9, p.116

Gardner-Denver Co.:
Builds, Oak Park, Mich., 9/10, p.127
Canadian plant purchase, 8/13, p.77

Garrett Co., George K.:
Builds in Philadelphia, 12/17, p.81

Garret Corp.:
Foreign sales, 9/17, p.103

Garwood Co., George:
Index machine for Leeds & Northrup, 12/24, p.68

Gas Appliance Service Inc.:
Moves, B, 7/9, p.82

Gas Machinery Co.:
CF&I furnace contract, B, 9/3, p.73

General Bearing Co. Inc.:
Expands, B, 11/5, p.93

General Box Co.:
Pallet boxes, IE, 9/10, p.192

General Cable Corp.:
Cold weld joins aluminum tubing, 9/3, p.83

General Dynamics Corp.:
Convair chem-milling, 11/19, p.148
Convair test unit, B, 10/22, p.73

General Electric Co.:
Arc weld electrode, IE, 12/17, p.114
Atomic hydrogen welder, IE, 11/26, p.134
Atomic plant, West Coast, 7/9, p.47
Automatic controls (steel mills): W. E. Miller, 9/17, p.184
Builds hp motor plant, Tenn., 8/27, p.53
Builds Florida plant, 7/16, p.109
Carbide licks a tough cut (refrigerant valve plate), 11/19, p.166
Carboloy renamed, 7/2, p.28; 7/30, p.77
Core steel tester, 11/19, p.177
Diamond outlook, 7/2, p.37
Electric heat for plating baths: J. A. Baker, 12/10, p.170
Expands for canned motors, electromagnetic pumps, TO, 8/27, p.79
Giant broach on electromechanical drive unit, 12/3, p.139
Industrial Heating: (H. M. Webber) How to braze stainless, 9/3, p.94; 9/10, p.158
Lab plans, 11/5, p.93
Leases space, Utica, B, 12/31, p.54
Machine tool relay, IE, 10/15, p.150
Marking machine for conduit, 11/12, p.150
Motor drives 300-amp welders, IE, 7/23, p.101
Plastic Vulkene material, TO, 9/3, p.77
Plating rectifier, IE, 9/17, p.215
Roof ventilators solve space problem, Appliance Park, 12/17, p.96
Spot weld, IE, 12/24, p.74
Steel foundry: Induction stirrers upgrade cast steel, 9/24, p.132
Transformer impregnating system, 12/10, p.179
Trucks two-way radios, leased, 7/16, p. 86
Trumbull dept. renamed, 9/10, p.128
Ultrasonics training device, flaw simulator, 9/17, p.194
Voltage recorder, IE, 7/9, p.110
Women engineers, 12/24, p.28

General Machine Products Co.:
Builds plant, B, 11/5, p.67

General Mills Inc.:
Auto fab, automatic assembly, 9/10, p.140

General Mogul Bearing Co.:
Builds in Albany, B, 11/19, p.130

General Motors Corp.:
AC Spark Plug:
Expansion, 9/10, p.105
Magnesium diecasting, five hot chamber machines, 8/13, p.102
Sales forecast, 11/26, p.72
Auto exhaust studied, 9/3, p.60
Automatic assembly machine, 9/10, p.140; 12/3, p.120
Buick:
Century Caballero, estate wagon, 11/5, p.80
Material handling streamlined, 9/10, p.114
Material handling lifts steel parts, 10/15, p.119
Offers hot-rolled sheet, 10/1, p.128
Power steering, 8/6, p.92
Brazilian truck outlet, 12/24, p.48
Bus manufacturing, monopolistic charge, 7/16, p.88
Cadillac:
Buys Hudson body plant, 8/20, p.88
De Mause: Management at Work, 12/3, p.89
Stainless steel top for Eldorado, 12/3, p.93
California plant site, 10/29, p.84
Chevrolet:
Expands Tonawanda foundry, 8/27, p.53
Fuel injection system, 9/17, p.106; 11/19, p.113
Production figures, 7/23, p.52
Employee motivation - incentive programs, 9/24, p.107
Firebird—all titanium body, 12/10, p.92
Fisher Body absorbs Packard steel stocks, 10/1, p.128
Free piston engine, TO, 8/27, p.79
German market, 12/10, p.111
Euclid buys in Hudson, 9/10, p.105; construction scheduled, 10/8, p.65
New Departure anniversary, 8/13, p.86
Pay boost for hourly employees, 9/3, p.60
Pontiac:
Paint priming line, 8/6, p.92
Tool control system (IBM), 10/1, p.127
Saginaw Steering Gear Div.:
Ultracleaning with ultrasonics, 7/9, p.90
Stamping plant proposed, Lordstown, O., 12/31, p.29
Stock purchase program, salaried employees, 7/2, p.39
Ternstedt Div.:
Quality control charts plating savings: G. J. Campbell, 7/23, p.90

General Refractories Co.:
All-basic open hearth: R. P. Heuer, 9/17, p.192

General Road Machines Inc.:
Sold, B, 10/29, p.115

General Scientific Equipment Co.:
Moves, B, 9/3, p.74

General Steel Castings Corp.:
Automatic mix for molding sand, 7/16, p.145
Jenni, Clyde, BDSA post, 9/3, p.52

General Tire & Rubber Co.:
Tire (dual tread 90), 8/13, p.64

Gerity-Michigan Corp.:
Sold, B, 10/15, p.106; 2/17, p.82

Gerlinger Carrier Co.:
Fork lift trucks, IE, 7/30, p.127

Gerotor May Corp.:
Builds, B, 9/10, p.127

Gerrard & Co., A. J.:
Builds strapping plant, B, 11/5, p.96

Gerstenslager Co.:
Aluminum trailer, fold up, TO, 12/31, p.57

Gibson Refrigerator Co.:
Cold extruded shells, 11/5, p.108

Gilbert-North Inc.:
Changes name, 7/23, p.68

Gisholt Machine Co.:
Lathe for P & W, 12/17, p.92

Glidden Co.:
Expansion program, Baltimore, 9/3, p.47

Globe Iron Co.:
Sold, B, 8/6, p.106

Goddard & Goddard Co.:
Brass slab milling, IE, 8/13, p.126

Goodrich Co., B. F.:
Survey shows engineer need, 12/10, p.101

Goodrich Industrial Products Co.:
Duolock, new bond, TO, 11/12, p.129

Goodyear Tire & Rubber Co.:
Rubber bellows air spring, 7/2, p.48

Granite City Steel Co.:
Electrical features of a reversing rougher, 9/17, p.170
Expands: Sintering plant, soaking pits, 11/19, p.93
Expansion plans, 12/24, p.35
Faster charge for open hearth (change-over to charging boxes), 12/24, p.70
Oxygen generator ordered, 12/17, p.81

Govro-Nelson Co.:
Centering machine, IE, 9/24, p.138

Graton & Knight Co.:
Assets transferred, B, 9/3, p.74

Grav-i-Flo Corp.:
Spin-Finish machine, IE, 12/3, p.159

Great Lakes Steel Corp.:
Amortization requests, 12/3, p.83

Green River Steel Corp.:
Jessop may buy, 8/6, p.72

Greenfield Tap & Die Corp.:
Buys Horton Chuck Div., 7/30, p.86
Die head, IE, 12/24, p.75

Greenville Steel Car Co.:
Expands, B, 10/29, p.112

Gregory Industries Inc.:
Expands Nelson plant, B, 11/19, p.127
Stud welder, IE, 10/1, p.258

Grip Nut Co.:
Moves offices, B, 9/10, p.132

Grove Valve & Regulator Co.:
Sold, B, 10/15, p.104

Gulf Oil Corp.:
Columbium ore, Ont., reported, 7/9, p.48

Gulf States Tube Corp.:
Formed, B, 7/30, p.88

Guthery Machine Tool Corp.:
Aro Spot welder, IE, 11/12, p.169

H

H & M Machine Co. Inc.:
Enters tubing field (successor to H&H Machine Co.), 9/17, p.119

Haberstump-Harris Inc.:
Hopper feeder, IE, 7/23, p.105

Hacker & Co. Inc., William J.:
Surface finish tester, IE, 9/17, p.202

Hall Laboratories Inc.:
Partridge, Dr. E. P.: Management at Work, 10/29, p.89

Haller Inc.:
Briquetting press, IE, 7/16, p.171

Hamant Tool Co.:
Graining machine, IE, 9/24, p.143

Hamden Smelting Co. Inc.:
Renames warehouse operations, 10/22, p.73

Hamilton Watch Co.:
Allied Product: Heat treating stainless parts, 8/20, p.122

Hammond Machinery Builders Inc.:
Coated abrasives machinery finisher, 11/12, p.134
Flat finisher, IE, 11/26, p.128
Mist collector, IE, 8/20, p.140
Polishing lathe, IE, 10/29, p.148

Handy & Harman:
The why of flux: Chamer and Setapen, 7/2, p.80 and 7/9, p.99
Brazing alloys, IE, 11/19, p.190
Hardenable silver alloy, 8/13, p.120

Hanna Engineering Works:
Control valves, IE, 8/6, p.142

Hanson-Van Winkle-Munning Co.:
Automatic loaders, IE, 9/10, p.175
Centrifugal dryer, IE, 7/23, p.102
Cleaner etches aluminum, IE, 11/26, p.123
Dial-A-Cycle, automatic finishing, 10/29, p.143
Level plating, 7/16, p.137
Plating cylinders, IE, 12/31, p.71

Harbison-Walker Refractories Co.:
Expands, B, 8/13, p.80

Harnischfeger Corp.:
Welder line, IE, 10/15, p.148

Harnischfeger Export Corp.:
Chile firm, B, 9/17, p.122

Harper Electric Furnace Corp.:
Furnace 5000°F, TO, 9/3, p.77

Harris Calorific Co.:
Cut-O-Mation, IE, 9/17, p.208

Harris Foundry & Machine Co.:
Scrapyard machines for '57, Georgia open house, 11/5, p.70

Harrison Machine Co.:
Two station core blower, IE, 11/19, p.188

Hartex Machine & Tool Works:
Sold, B, 11/19, p.132

Harvey Aluminum Co.:
8000-ton press for aircraft and missiles, 12/24, p.60

Harvey Machine Co. Inc.:
Aluminum reduction plant, Oreg., 7/23, p.32

Hauck Mfg. Co.:
Blended flame unit, IE, 10/15, p.150

Hause Engineering:
Automatic drill press, IE, 7/23, p.104
Double end machines, IE, 8/27, p.102

Hauserman Co., E. F.:
Reynolds partnership to make partitions, 8/20, p.107
Russia report by president, 11/19, p.103

Haynes Stellite Co.:
Investment casting alloy, TO, 10/15, p.119

Heald Machine Co.:
Bore-Matic faces valve bodies, IE, 9/10, p.175
Boring machine, IE, 7/30, p.127

Heitmann Co., F. W.:
Warehouse stock, B, 10/29, p.110

Helical Tube Corp.:
Moves mfg. facilities, B, 9/24, p.96

Heli-Coil Corp.:
Sold, B, 10/15, p.106

Heppenstall Co.:
Automatic tongs, IE, 11/26, p.124
Coil tongs, IE, 7/9, p.114
Die steel, IE, 8/27, p.102
Drum tilter, IE, 9/17, p.198
Indianapolis warehouse, B, 12/10, p.128

Hermidifier Co.:
Organized, B, 10/29, p.112

Herr Equipment Corp.:
Automatic stitcher, IE, 11/12, p.157

Herrick Iron Works:
Builds, 10/29, p.85

Herrick Mfg. Corp., C. B.:
Ram type manipulator, IE, 9/24, p.140

Hevi Duty Electric Co.:
Tube furnace, IE, 11/5, p.153

Hewitt-Robins Inc.:
Contracts for U.S. Steel conveyor, 8/6, p.105

High Speed Hammer Co.:
Rivet spinner head, IE, 9/24, p.136

Highway Trailer Co.:
For sale, 10/15, p.64

Hill Inc., Walter P.:
Bender, IE, 11/12, p.162
Double end machines, IE, 8/20, p.144

Hills-McCanna Co.:
Build, B, 9/10, p.127

Hobart Bros. Co.:
AC-DC welder, IE, 10/1, p.267
AC welder control, IE, 11/5, p.147
Rectifier welder, IE, 9/17, p.208

Hoffman Iron & Steel Co.:
Expands, B, 10/29, p.107

Hoffman Motor Car Co.:
Mercedes-Benz distributor, 10/8, p.76

Hokin Aluminum Co.:
Extrusion mill sold, 11/12, p.107

Hommel Co., O.:
Porcelain enamel lab, B, 12/10, p.130

Hooker Electrochemical Co.:
Cleaning castings, IE, 8/6, p.138
Merges Oldbury, B, 12/17, p.82

Hoover Ball & Bearing Co.:
Buys Gerity - Michigan, 10/15, p.106; 12/17, p.82

Hoover Co.:
Diecast holes for brush tufts, TO, 11/12, p.129

Horizons Inc.:
Ceramic humidity-sensing device, TO, 10/8, p.93
Electrolytic process produces titanium, 8/13, p.44

Horsch Co., William F.:
Moves Detroit office, B, 12/31, p.55

Horton & Son Co., E.:
Sells Horton Chuck Div., 7/30, p.86

Hotpoint Co.:
Kissock, W. A.: Management at Work, 8/27, p.57

Houdaille Industries Inc.:
Buys Wales-Strippit, B, 7/30, p.83

Hough Co., Frank G.:
Expands, B, 7/9, p.82
Pin-type arbor, IE, 8/20, p.144
Tractor shovel, IE, 10/15, p.153

Houghton & Co., E. F.:
Hydraulic fluid, IE, 10/29, p.150
Rust preventive, IE, 10/1, p.272

Houston Pipe & Steel Inc.:
Consolidates, B, 12/3, p.116

Howard Electric Co.:
Changes hands, 9/3, p.51; 9/24, p.96

Howe & Fant Inc.:
Turret drill, IE, 12/3, p.158

Howe Scale Co.:
Dragline trucks, IE, 7/16, p.163

Hudson-Sharp Machine Co.:
Sold, B, 9/17, p.127

Hufford Machine Works Inc.:
Vac-U-Lift, new div., 11/5, p.93

Hughes Aircraft Co.:
Expands at Tucson, 12/17, p.81
Ultrasonic cleaning guided missiles, 8/27, p.92

Hupp Corp.:
Foreign div., 9/10, p.111
Perfection warehouse, Ga., 12/24, p.60

Hydra-Feed Machine Tool Corp.:
Bullard buys line, 12/31, p.66
Double tracer lathe, IE, 10/29, p.148

Hydraulic Press Mfg. Co.:
Merged with Koehring, B, 9/17, p.126

Hydrometals Inc.:
Formed, 10/15, p.75

Hyper Tool Co.:
Moves, B, 11/12, p.112

Hyster Co.:
Lift trucks, IE, 7/16, p.164
Mobile crane, IE, 7/30, p.127

I

Illinois Clay Products Co.:
Ladle lining, IE, 7/30, p.124

Impact Extrusions Inc.:
Formed, B, 7/2, p.61

Impact Products Inc.:
Cold forged superalloys, 12/3, p.126

Indiana Steel Products Co.:
Buys magnetic line, B, 8/6, p.105

Industrial Enterprises Inc.:
Buys Vincennes Steel, 12/10, p.136

Industrial Filtration Co.:
Screen filter, IE, 11/12, p.158

Industrial Gastruck Inc.:
LP gas conversion kit, IE, 7/30, p.127

Industrial Gauges Corp.:
Opens N.J. plant, B, 9/24, p.96

Industrial Marking Equipment Co.:
Marking machines, IE, 8/6, p.145
Sheet metal printer, IE, 10/8, p.125

Industrial Nucleonics Corp.:
Radiation gage, IE, 9/10, p.180
Sheet classifier, IE, 9/17, p.198

Industrial Reactor Laboratories Inc.:
Formed, 10/8, p.89

Industrial Retaining Ring Co.:
Moves, B, 8/13, p.82

Industrial Solvents & Chemicals Inc.:
Forms Vacuum Coatings Div., 12/24, p.60

Industrial Tectonics Inc.:
Nonmagnetic bearings, IE, 10/1, p.254
West Coast plant, 9/10, p.102

Industrial Transmissions Inc.:
Renamed, B, 9/3, p.74

Ingalls Industries:
Structurals contract for Consolidated Edison, 10/8, p.89

Ingalls Iron Works Co.:
Ingalls hits its stride: Contracts, diversification, 9/24, p.69

Ingersoll-Rand Co.:
Put quality into bolt tightening, 11/5, p.123

Inland Steel Co.:
Continuous casting-carbon steels discontinued, 7/23, p.32
Flange beams produced wider at revamped plant, 8/13, p.106
George, Moxie S.: BDSA post, 9/17, p.98
How much does lead change steel? 10/29, p.122
More iron without more furnaces (C. M. Squarcy and R. J. Wilson), 11/19, p.150; 11/26, p.98
Office building welded, 12/24, p.64
Universal slabbing mill ordered, 7/16, p.84

Inland Steel Container Co.:
Absenteeism, how to cut, 8/27, p.58

Inland Steel Products Co.:
Rolling mills for steel floors and roof decking, 7/30, p.96

Interlake Iron Corp.:
Buys Globe Iron, B, 8/6, p.106

International Business Machines Corp.:
APR: Automatic production recording system, 9/17, p.97
Computer at Westinghouse transformer center, 11/5, p.126
Expands Lexington facilities, Kingston lab, 7/16, p.109; building contract, 9/24, p.96
Pontiac tool control system, 10/1, p.127
Research center, Yorktown, 10/29, p.110

International Harvester Co.:
Automation conference, 10/8, p.66
Closes farm implement plant, 10/15, p.100
Expands in Canada, B, 11/26, p.85

International Nickel Co. of Canada Ltd.:
Nickel mine development, Mystery-Moak Lakes region-(Thompson and Moak mines), 8/6, p.80 and 12/10, p.100

International Rustproof Co.:
Moves at Chicago, 9/3, p.74

International Steel Co.:
Engineer-technician training program, 10/29, p.82

I-T-E Circuit Breaker Co.:
Buys Kelman Electric, B, 8/13, p.86
Brinell tester for hardness readings on metal parts, 11/12, p.150

J

J & D Tool Co.:
Moves, B, 9/10, p.132

James-Pond-Clark:
Renamed, B, 8/20, p.107

James Products Co.:
Drill sleeves, IE, 12/31, p.72

James Steel & Tube Co.:
Florida mill, B, 12/31, p.54

Jancy Engineering Co.:
Sheet metal drill, IE, 9/17, p.205

Jarrell-Ash Co.:
Spectrometer, IE, 8/27, p.102

Jeffrey Mfg. Co.:
Copper-cored nickel tubing, TO, 12/24, p.63

Jessop Steel Co.
May buy Green River Steel, 8/6, p.72

Johansson Co., I. O.:
Radial drill, IE, 10/29, p.150

Johnson & Funk Titanium Corp.:
Titanium wire, IE, 7/2, p.92

Johnson, Matthey & Mallory:
Expands, B, 9/3, p.74

Jones & Lamson Machine Co.:
Acquires boring machine line, B, 8/13, p.77
Buys Modern Tool Wks., B, 9/17, p.130

Jones & Laughlin Steel Corp.:
Air system, Pittsburgh Wks., 12/10, p.150
Aliquippa contracts:
Automatic mill, 11/12, p.83
Precipitators, tube upset furnace, 7/16, p.109
Semicontinuous hot strip mill, 8/6, p.105
Austin addresses Wellman Eng. group on:
Revolution in steel, 10/1, p.117
Technical graduates recruiting, 10/15, p.128
Health center plans, 9/10, p.128
Hot-dip galvanizing: Continuous strip gets tight coat, 8/6, p.119
Houston seamless pipe mill planned, 7/9, p.57
Houston amortization sought, 7/23, p.31; refused, 8/20, p.67
Leases taconite ore property, Ont., 10/22, p.73
Leases taconite ore property, Wis., 7/30, p.80
Magnet wire packaged with aid of steel pails, 7/9, p.108
Refining process (coal chemicals), 8/27, p.79
Rotary Electric purchase subject to approval, 12/31, p.29
Spiral nail, 10/22, p.123
Supply div. Tulsa facility, 12/17, p.81
Warehouse, Louisville, B, 11/5, p.93

Julian Iron Co.:
Iron ore property, 12/31, p.54

K

Kaiser Aluminum & Chemical Corp.:
Acquires Hokin extrusion plant, 11/12, p.107
Agreement with United Steelworkers, 9/10, p.94
Basic brick deliveries to steel industry, 10/8, p.63
Braze welding aluminum to copper (joints), 9/24, p.122
Cold welding tubing, 9/3, p.83
Detroit automotive sales office moved, 12/17, p.82
Electrical connector, IE, 7/16, p.166
Extruding metal where it's needed: C. J. Huffman, Halethorpe Wks., 10/22, p.95
Extrusion presses (Birdsboro), 7/30, p.83
Foil Kraft plant, Ind., B, 12/3, p.110
Forging ingot 32-in. for Air Force, 10/22, p.77
Forging plant (Erie), price paid GSA, 10/1, p.108
Ravenswood program, expansions, 10/15, p.75
Ravenswood rectifier equipment order, 9/10, p.104
Refractory plant, Columbiana, O., opens, 9/3, p.73

Kaiser Engineers:
Beneficiation plant, 7/16, p.140
Oxygen steelmaking plants: C. R. Austin, 9/17, p.186

Kaiser Industries Corp.:
Report on Kaiser Industries, expansion program, 12/10, p.99

Kaiser Steel Corp.:
Blast furnace operation: Lower ash for better coke, 7/16, p.140
Oxygen converter plant, B, 8/6, p.106
Quality control in a pipe mill: J. A. Curry, 9/10, p.148
Strip mill, Calif., contract, 7/16, p.76
Tractor makes speedy switch engine, 11/26, p.120

Kaman Aircraft Corp.:
How steam cleaning speeds maintenance, 12/10, p.148

Karp, Lesser & Co. Inc.:
Formed, B, 9/24, p.96

Karp Metal Products Co.:
Moved, B, 10/8, p.90

Kawneer Co.:
Aluminum product line, 10/29, p.107

Kaydon Engineering Corp.:
Plastic ball bearings, TO, 7/2, p.65
Size-O-Tron, centerless grinder control, 12/10, p.164

Kean Mfg. Co.:
Nuts assembly made of shaped wire, 7/16, p.132

Kearney & Trecker Corp.:
Automatic machines for Air Force, 8/20, p.130
Jones, J. R., BDSA post, 10/1, p.120
Pattern shop to close, B, 8/6, p.105

Keasbey & Mattison Co.:
Asbestos fireproofing, TO, 12-10, p.141

Kellett Aircraft Corp.:
Moves, B, 11/12, p.112

Kellogg Co., M. W.:
Price on plastic mold resins, 8/6, p.72

Kelsey-Hayes Wheel Co.:
Builds at Falsington, Pa., B, 8/27, p.75
Buys Koldweld, 11/12, p.112
Buys Utica Drop Forge, B, 7/30, p.88

Kennametal Inc.:
Tool KSDN, IE, 9/10, p.186

Kennecott Copper Corp.:
Forms titanium firm with Allied Chemical, 12/31, p.54
Zirconium pilot contract to Horizons, 8/20, p.68
Zirconium pilot plant, Bedford, O., 8/27, p.53

Kensico Mfg. Co.:
Lifting clamp, IE, 9/10, p.191

Keystone Lubricating Co.:
Greases, IE, 11/19, p.188

Keystone Steel & Wire Co.:
Mill lube systems contract, 12/24, p.60

Kindt-Collins Co.:
Contour grinder, IE, 8/20, p.146

King Fifth Wheel Co.:
Jet rings boost, 12/31, p.33

King Tester Corp.:
Brinell hardness readings, 11/12, p.150

Knapp-Monarch Co.:
Buys Metalcraft, B, 12/24, p.61

Knickerbocker Co.:
Fork lift truck, IE, 8/27, p.102; 11/12, p.162

Koehring Co.:
Buys Buffalo-Springfield, 11/12, p.112
Buys Hydraulic Press, 9/17, p.127

Koldweld Corp.:
Sold, 11/12, p.112

Kondor Products Corp.:
Lubrication in drawing: E. D. Viers, 7/9, p.86; 7/16, p.148; 7/23, p.94

Koppers Co. Inc.:
Italian furnace contract, 9/10, p.111
Oil purification plant, U.S. Steel, 9/3, p.73
Research center, Monroeville, Pa., 7/16, p.109

Kruger Machines Inc.:
Water-cooled molds, IE, 12/3, p.156

Kuhlman Electric Co.:
Rocking furnace, IE, 12/3, p.156

Kuma Tool Co.:
Moves at Chicago, 12/31, p.55

Kwikset Locks Inc.:
Installs furnace, B, 10/1, p.141

L

L-R Heat Treating Co.:
Rizzo: Management at Work, 12/17, p.63

Laboratory for Electronics Inc.:
Vertical assembly, 7/2, p.65

Lahr Machine & Tool Corp.:
Buys die casting div., B, 11/12, p.110
Driller, IE, 11/12, p.161

Lake City Malleable Co.:
Sells foundry, B, 9/17, p.124

Lake Erie Engineering Corp.:
Forging press, IE, 7/30, p.124

Lamson & Sessions Co.:
Rayburn, Jim: Management at Work, 10/1, p.123
Russia reported by G. S. Case, 11/19, p.103

Lamson Mobilift Corp.:
Truck side shifter, IE, 9/24, p.143

Lance Iron Works:
Lanceveyor, loader, IE, 10/15, p.150

Landers, Frary & Clark:
Buys Standard Products, B, 11/19, p.135

Landis Machine Co.:
Landmatic die head, IE, 10/29, p.152

Landis Tool Co.:
Moves to Penton Bldg., 11/5, p.99

Lane-Wells Co.:
Moves headquarters, adv.-sales, 8/13, p.82

Langley Mfg. Co.:
Straddle fork lift, IE, 12/17, p.114

Lapointe Machine Tool Co.:
Giant broach for GE, 12/3, p.139

Lasalco Inc.:
Cycleflex, automatic plater, IE, 11/5, p.157

La Salle Tool Inc.:
Line-O-Matic transfer press, IE, 9/17, p.212

Latrobe Steel Co.:
Amortization request, blooming mill, 12/3, p.83

Lea Mfg. Co.:
Expands, 8/27, p.49

LeBlond Machine Tool Co., R. K.:
Buys Fosdick, 11/12, p.112
Cemented oxide lathe tool, 8/20, p.130
Sliding bed on lathe, IE, 8/13, p.121

Lee Wilson Engineering Corp. Inc.:
Lee Wilson visits Russian steel mills, 8/27, p.88
Trends in annealing: J. L. Whitten, 9/17, p.188

Leeds & Northup Co.:
Electromax controller, IE, 10/1, p.270
Index machine triples output, 12/24, p.68
Indianapolis office, B, 9/3, p.74

Lehmann-Brandes Machine Co.:
Spindle lathe, IE, 8/20, p.146

Lenco Inc.:
New name, B, 10/1, p.146

Lepel High Frequency Laboratories Inc.:
Fluxless braze, TO, 10/1, p.119

Lester Bros. Inc.:
Adds facilities, B, 10/15, p.100

LeTourneau-Westinghouse Co.:
Expansion program, Peoria, etc., 8/6, p.105

Lewis-Shepard Products Inc.:
Drum stacker, IE, 10/22, p.107
Electric tractor, IE, 8/27, p.102

Lewyt Corp.:
Reaming machine, 7/2, p.65

Lincoln Electric Co.:
All-position electrode, IE, 9/10, p.180
Expands, B, 7/23, p.68; 10/22, p.49
Incentives boost productivity, 9/24, p.106

Lincoln Engineering Co.:
Buys McNeil Machine & Eng., 7/2, p.62

Lindberg Engineering Co.:
Combustion tube furnace, IE, 7/2, p.89
Induction heating furnace, IE, 10/29, p.147

Lindberg Industrial Corp.:
Ford aluminum-furnace contract, 11/5, p.93

Lindberg Steel Treating Co.:
Expands, B, 7/9, p.82

Linde Air Products Co.:
Cutting torch, IE, 8/13, p.126
Flame-plated tools, 9/3, p.104
Hand welding change, TO, 9/3, p.77; report confirmed, 11/5, p.105
Heliarc torch, TO, 7/23, p.77
Oxygen capacity increased, 11/19, p.160
Oxygen cylinder, IE, 10/1, p.254

Line Material Co.:
West Coast plant, 10/8, p.63

Link-Belt Co.:
Buys Detroit Power Screwdriver, B, 12/3, p.116
Giant stacker for Erie Mining, 9/17, p.194
Moves at Cleveland, B, 10/22, p.74

Lipe-Rollway Corp.:
Bar loader, IE, 12/17, p.107
Ceramic clutch plates, 8/6, p.109
Spring dampeners, IE, 8/6, p.140

Little Inc., Arthur D.:
High top pressure: Bruce Old, 9/17, p.191
Uranium prospects, 11/12, p.73

Litton Industries:
Buys Triad Transformer, B, 9/17, p.130

Loam Machine Mfg. Co.:
Ingot saw, IE, 11/19, p.192

Lockheed Aircraft Corp.:
Nuclear lab for Air Force, B, 12/3, p.112
Radial draw formers, 8/20, p.122
Rubber (compression) forming, 7/30, p.109

Lofstrand Co.:
Specializes in fabrication, 7/9, p.82

Loftus Engineering Corp.:
Contracts:
Armco furnace, 10/8, p.65
Navy car bottom furnace, 9/3, p.73
Revere Brass billet induction heater, 8/13, p.99
Forms new division, 11/26, p.85

Logistics Research Inc.:
Digital computer, 12/31, p.61

Lombard Corp.:
Billet heater, IE, 9/10, p.191

Lone Star Steel Co.:
Open hearth planned, 8/27, p.42

Lovejoy Flexible Coupling Co.:
Flexible coupling, IE, 8/13, p.130

Lukens Steel Co.:
Titanium spinning, TO, 12/31, p.57

Lummus Co.:
Sells division, B, 10/8, p.90

Luria Bros. & Co. Inc.:
Dismantle buildings, 9/10, p.127
Moves at Birmingham, B, 10/15, p.102

Luria Engineering Co.:
Aids Progress Mfg., 8/27, p.53
Pittsburgh office, B, 11/5, p.93
Steel fabricating plant, 7/2, p.61

Lux Clock Mfg. Co.:
Expands powdered metal plant, 7/16, p.109

Mc

Mac Dermid Inc.:
Customer serivce lab, B, 7/9, p.81

MacLean-Fogg Lock Nut Co.:
Two-way nut, IE, 12/3, p.158

McCord Corp.:
Radiators-stainless steel, 10/29, p.94

McCormick Steel Co.:
Builds plant, Dallas, B, 11/12, p.110

McDanel Refractory Porcelain Co.:
Expands, 8/6, p.159

McDonough Mfg. Co.:
Tool grinder, IE, 12/3, p.156

McDowell Co.:
Dwight-Lloyd sintering plant design for U.S. Steel, 7/2, p.74

McGraw Electric Co.:
Merges Edison, B, 10/22, p.74

McGregor-Michigan Corp.:
Opens Detroit plant, B, 11/19, p.127

McKay Machine Co.:
Buys Metal Processing Machine, 8/20, p.101

McKee & Co., Arthur G.:
Steel div. moved, B, 10/22, p.74

McKinney Mfg. Co.:
Moves midwest office, B, 7/23, p.70

McNeil Machine & Engineering Co.:
Sold, B, 7/2, p.62

McQuay-Norris Mfg. Co.:
Enlarges Canadian plant, 10/22, p.73

M

Maday Body & Equipment Corp.:
Moves manufacturing, B, 11/26, p.86

Magline Inc.:
Dock plates, IE, 7/2, p.88
Portable table at loading ramp, IE, 10/22, p.106

Magnaflux Corp.:
Rod and tube Magnatest, IE, 10/22, p.108
Sonizon measures thickness, IE, 9/10, p.176
Tube testing, IE, 8/27, p.108

Maico Co. Inc.:
Speed and feed meter, IE, 11/19, p.187

Mallinkrodt Chemical Works:
Forms uranium refining plant, 10/22, p.49

Mallory Co. Inc., P. R.:
Plans metal refining plant, 8/13, p.77

Mallory-Sharon Titanium Corp.:
Furnace expansions, 8/6, p.106
Pilot plant salvages titanium scrap, TO, 12/24, p.63
Vacuum annealing furnace for titanium sheets, TO, 11/26, p.89

Mannesmann International Corp. Ltd.:
Canadian pipe mill, 12/10, p.99

Mannesmann-Meer Engineering & Construction Co.:
Powder metal press, IE, 10/29, p.152

Manning, Maxwell & Moore Inc.:
Shaw-Box Div.: Overhead crane goes hydraulic, 9/24, p.128

Marion Malleable Iron Works:
Automated annealing equipment ordered, 10/15, p.71

Marion Power Shovel Co.:
Sold, B, 11/26, p.86

Martin Co., Glenn L.:
Buys Florida site, 9/24, p.71
Dip brazed parts take the heat, 10/8, p.114
Martin International formed, B, 12/3, p.108

Code: B—*Briefs;* TO—*Technical Outlook;* IE—*Industrial Equipment*

Marvel-Schebler Products:
Gas fuel injection system, 9/24, p.80

Maryland Shipbuilding & Drydock Co.:
Expands, B, 9/10, p.130

Massachusetts Steel Treating Corp.:
Expands facilities, B, 12/3, p.108

Massey-Harris-Ferguson Inc.:
Hydraulic stamp of quality: Robert Johnson, 9/10, p.144
Launches tractor line, 9/24, p.96

Master Pneumatic Tool Co. Inc.:
Die grinders, IE, 7/23, p.102

Master Tank & Welding Co.:
Quincy plant, B, 8/20, p.111

Matthews & Co., Jas. H.:
Portable marker, IE, 9/24, p.140

Mercury Mfg. Co.:
Electric tractor, IE 8/6, p.131
Industrial tractor, IE, 10/8, p.118

Mesta Machine Co.:
Acquires foundry, B, 7/30, p.88
Bethlehem contracts:
Cold mill, 8/27, p.75
Pickling line, 10/8, p.62
Skin pass mill, 9/24, p.66
J&L mill contract, 8/6, p.105
Inland wide flange beam mill contracts, 8/13, p.106
Kaiser strip mill contract, 7/16, p.76

Metal & Thermit Corp.:
Equips Canadian plant, 12/10, p.128
Iron powder electrode, IE, 10/29, p.150

Metal Hydride Inc.:
Plant contract let, B, 10/8, p.90

Metal Processing Machine Co.:
Sold, B, 8/20, p.101

Mica & Minerals Corp. of America:
Formed in Ga., B, 10/1, p.146

Michigan Chrome & Chemical Co.:
Buys Pyramic Plastics, B, 8/13, p.85

Michigan Drill Head Co.:
Angle-Matic machine, IE, 8/27, p.111
Transfer machine for Chrysler, 8/20, p.130

Michigan Industries Co.:
Formed, 10/29, p.107

Michigan Seamless Tube Co.:
Steel pipe plant, Tex., B, 7/30, p.88

Michigan Tool Co.:
Anderson report: What automation demands, 7/23, p.43
Gear shaver, IE, 9/17, p.200
Gear tester, IE, 8/20, p.144; 11/5, p.150
Gear washer, IE, 11/5, p.147

Michigan Wheel Co.:
Conveyor lines boost production, 9/3, p.84

Mid West Body & Mfg. Co.:
Elevating tail gate, IE, 7/16, p.168

Mil'holland Machinery Co. Inc., W. K.:
Cam feed unit, IE, 11/19, p.184

Miller Metal Products Inc.:
Rebuilds plant, 9/10, p.127

Mine Safety Appliances Co.:
Forms MSA Research, 10/22, p.73
Telecrane system, 7/30, p.106

Minneapolis-Honeywell Regulator Co.:
Buys Davies Laboratories, 11/12, p.112
License for electronic cleaning equipment, 12/3, p.85
Micro Switch, miniaturization, 7/23, p.81
Sealed switch, IE, 7/30, p.124

Minnesota Mining & Mfg. Co.:
Adhesives, IE, 9/27, p.205; 8/13, p.124; 11/26, p.132
Buys Zenith Plastics, B, 8/27, p.76

Minnich Machine Works:
Sold, B, 10/29, p.116

Minster Machine Co.:
Fixed base press, IE, 10/22, p.108
Gap press, IE, 11/19, p.195

Mississippi Steel Corp.:
Steel plant, Flowood, Miss., 10/8, p.62

Modern Corp.:
Changes name, 12/31, p.54

Modern Industrial Engineering Co.:
Burr-Blaster, deburring, IE, 11/5, p.164
Gear finisher, IE, 8/27, p.140

Modern Tool & Die Co.:
Hopper fed automatic screwdriver, 12/10, p.185

Modern Tool Works:
Sold, B, 9/17, p.130

Monarch Machine Tool Co.:
Raterman, new NMTBA president, 11/12, p.84

Monroe Auto Equipment Co.:
Dedicates Ga., plant, B, 10/1, p.144

Morgan Aluminum Welding Rod Co.:
Moves, B, 7/2, p.63

Morley Machinery Corp.:
Shaft knurling machine, IE, 8/6, p.136

Mosler Research Products Inc.:
Organized, B, 9/3, p.73

Motch & Merryweather Machinery Co.:
Duplex mill, IE, 10/22, p.106
Milling machine, IE, 9/10, p.191
Sawsharpener, IE, 8/27, p.105
Transfer milling machine, IE, 11/19, p.194

Motor Products Corp.:
Mack Ave. plant seeks defense work, 8/27, p.42

Motorola Inc.:
Building better bosses, advisory council, 7/9, p.55
Sample your incoming quality, 9/24, p.120

Mountaineer Carbon Co.:
Formed, B, 10/8, p.89

Mueller Brass Co.:
Salt bath furnace, TO, 8/13, p.99

Multiplex Co.:
Rotary head, IE, 8/20, p.146

Murray Co., A. B.:
Buys Pacific Steel Boiler plant, 9/24, p.96

N

NRC Equipment Corp.:
Vacuum induction unit, 12/31, p.32
Vacuum furnace, IE, 10/1, p.264
Vacuum pumps, IE, 12/3, p.160

Nankervis Co., George L.:
Buffing applicator, IE, 12/31, p.72

National Acme Co.:
Bar automatic, IE, 12/24, p.74
Pushbottom switch, IE, 10/15, p.147

National Broach & Machine Co.:
Gears honed to a whisper (Red Ring honing machines), 10/8, p.99
Gear shaver loader, IE, 7/16, p.159; 9/17, p.216
Gear shavers, IE, 11/12, p.170
Gear sound tester, IE, 12/17, p.108

National Carbon Co.:
Expands, 9/10, p.102
Larson, Dr. C. E.: Management at Work, 10/8, p.71
Lesson in electrodes, 7/23, p.86
Research facilities, B, 7/30, p.88

National Cored Forgings Co. Inc.:
Forging with a twist, 11/19, p.175

National Cylinder Gas Co.:
Holes forged in, 7/2, p.67
Hydrogen plant expansions, 10/22, p.49

National Electric Products Corp.:
Closes Torrance plant, adds warehouse, 8/20, p.107

National Gypsum Co.:
Builds plants, 12/10, p.98

National Lead Co.:
Doehler-Jarvis diecasting operation, 7/30, p.77

National Malleable & Steel Castings Inc.:
Thailand contracts for railroad, 10/8, p.67
To build grinding ball mill, 8/6, p.159

National Metal Abrasive Co.:
Borch: Management at Work, 7/23, p.47

National Motor Bearing Co.:
Merged, B, 8/13, p.85

National Polymer Products Inc.:
Nylon powders, IE, 10/29, p.148

National Research Corp.:
Chart: NBC stays on the beam, 11/19, p.104
Titanium castings for Air Force, 8/20, p.107

National-Standard Co.:
Adler, O. E.: Management at Work, 11/5, p.75

National Steel Co.:
Amortization request, Weirton, 12/3, p.83

National Steel Car Corp.:
Buys Trailmobile Canada, B, 11/19, p.135

National Union Electric Corp.:
Buys Armstrong Furnace, B, 10/29, p.115

National U.S. Radiator Corp.:
Buys air conditioning line, B, 8/6, p.106

National-Standard Co.:
Expands, B, 7/9, p.81
Spring wires, IE, 10/15, p.154

Nelco Tool Co.:
Sales operations—Brown & Sharpe combine, 8/27, p.76

Neuses Inc., P. K.:
Spring tension gage, IE, 8/6, p.135

New Jersey Zinc Co.:
Dissolves sales firm, B, 7/23, p.70
Strike settlement, 7/2, p.100

New Plastic Corp.:
Buys Lansco, B, 10/29, p.116

Newport News Shipbuilding & Drydock Co.:
Portable radiation machine, TO, 9/10, p.139

Newport Steel Co.:
Merger with Acme, 8/6, p.82; 9/17, p.92; 9/24, p.66

New Process Gear Corp.:
Activates transmission plant, B, 8/20, p.111

New Products Corp.:
Gear pump, IE, 12/31, p.73

New York Air Brake Co.:
Buys Optical Film Eng., B, 8/20, p.112
High vacuum pump, IE, 7/2, p.88; 8/6, p.131

New York Twist Drill Co.:
Builds, B, 10/8, p.66

Niagara Machine & Tool Works:
Grooving machines, IE, 8/27, p.106
Ring and circle shear, IE, 7/2, p.87

Nicholson File Co.:
Steam line under paving melts snow in storage areas, 11/12, p.91

Norden-Ketay Corp.:
Moves executive offices, B, 11/19, p.127

Norgren Co., C. A.:
Lubro-Control, IE, 9/17, p.215

North American Aviation Co.:
Chem-milling, a progress report, 11/19, p.148
Defense contract, supersonic twin-jet bomber, 10/1, p.120
Titanium production prototype, 11/26, p.85

North American Marine Inc.:
Formed, B, 10/15, p.104

North American Refractories Co.:
Research center plans, 12/3, p.107

Northill Co.:
Mergers, B, 8/27, p.76

Northwest Chemical Co.:
Nonferrous cleaner, IE, 7/16, p.174

Norton Co.:
Acquires Brazilian firm, 12/3, p.116
Builds service building, B, 10/15, p.100
Expands Huntsville, Ala., plant, 12/17, p.56
Forms divisions, B, 10/1, p.144
LCTU grinder, IE, 10/15, p.147
Rokide spray coatings, IE, 10/1, p.253
Universal grinder, IE, 8/6, p.131

Nylok Corp.:
Clinch nuts, IE, 12/24, p.75
Licenses firms, 8/27, p.76

O

Oakite Products Inc.:
Barrel finishing additive, IE, 8/6, p.141; 8/20, p.144
Finishing compounds, IE, 10/1, p.272
Liquid detergent, IE, 11/26, p.126
Solvent detergent, IE, 9/24, p.140

Oeconic Iron Ore of Canada Ltd.:
May develop iron ore property, 9/24, p.93

Odin Stove Co.:
Expands heater div., 12/3, p.85

Ohio Ferro-Alloys Corp.:
Barge service dock, B, 8/20, p.101
Builds at Clarington, O., 12/17, p.56

Ohio Machine Tool Co.:
Merges, B, 8/20, p.112

Ohlsson & Rice Inc.:
Torque wrench, IE, 12/3, p.156

Okonite Co.:
Handling hot lead, 7/16, p.155

Olin Mathieson Corp.:
Adds chemical fuel plants, B, 8/13, p.80
Forms Nuclear Fuel Div., B, 8/20, p.101
Joins with Revere to form: 9/10, p.128 and 8/27, p.140

Oliver Iron & Steel Corp.:
Sells pole line div., B, 7/23, p.68

Olofsson Corp.:
Boring machine, IE, 11/26, p.126

Olsen Machine & Tool Co.:
Finish grind with a wet belt (grinding shaded pole rotors), 8/13, p.114

Omega Mines Inc.:
Iron ore found in Black Hills, Ariz., 9/24, p.66

Opinion Research Corp.:
Public's opinion on "bigness," 10/15, p.63

Optical Film Engineering Co.:
Sold, B, 8/20, p.112

Osgood Co.:
Sold, B, 11/26, p.86

Outboard, Marine & Mfg. Co.:
Renamed, B, 8/20, p.112

Owen Bucket Co.:
Material handling bucket, IE, 12/24, p.75

P

Pacific Industrial Mfg. Co.:
Gap-type shear, IE, 11/5, p.153
Hydraulic press brake, IE, 8/13, p.127

Pacific Scientific Co.:
Furnace plant, 9/10, p.105; 9/3, p.73
Honeycomb testing, IE, 7/23, p.104

Pacific States Steel Corp.:
Buys blast furnace shell, 11/19, p.93

Page-Hersey Tubes Ltd.:
Mill for welded pipe, 12/10, p.99

Palmer-Shile Co.:
Storage racks, IE, 12/3, p.156

Pangborn Corp.:
Airless blast unit, IE, 9/24, p.135
Licenses English firm, B, 10/22, p.73

Pantex Mfg. Corp.:
Steam cleaner, 12/10, p.148

Parker Appliance Co.:
Quality control at operator level: J. D. Shaffer, 11/26, p.112

Parker Stamp Works Inc.:
Cam inspector, IE, 10/29, p.148
Marking machine, IE, 12/3, p.160
Renamed Parker-Hartford, 12/17, p.81

Parr Paint & Color Co.:
Parweld, sealer, IE, 9/24, p.136

Pastushin Industries Inc.:
Fluid-tight rivets, IE, 8/6, p.145

Patterson Foundry & Machine Co.:
Sold, B, 10/8, p.90

Peerless Gear & Machine Co.:
Moves, B, 9/3, p.74

Penn Metal Co. Inc.:
Moves General offices, B, 7/9, p.82

Pennsylvania Engineering Corp.:
Builds oxygen converters, B, 10/15, p.75
Scale car, IE, 8/27, p.106

Pennsylvania Malleable Iron Corp.:
Builds foundry, Landisville, Pa., 12/10, p.103

Pennsylvania Salt Mfg. Co.:
Acid proof mortar, IE, 7/16, p.168
Buys Delco Chemicals, B, 12/3, p.116

Pereny Equipment Co.:
Portable heat treat furnace, IE, 8/6, p.132
Sintering furnace, IE, 10/8, p.124

Perfect Circle Corp.:
Builds distribution center, 8/20, p.104
Buys firm, B, 8/20, p.112

Perfection Industries: See Hupp

Permacel Tape Corp.:
Glass cloth tape, flame-resistant, IE, 11/19, p.195
Masking tape, IE, 9/17, p.202

Pettibone Mulliken Corp.:
Buys Mercury Mfg., B, 11/26, p.86

Pheoll Mfg. Co.:
Ylvisaker: Management at Work, 7/2, p.43

Philco Corp.:
Buys Sierra Electronic, B, 11/26, p.86

Phillips Mfg. Co.:
Degreaser, IE, 7/2, p.92

Phoenix Iron & Steel Co.:
Amortization request, 12/3, p.83
Seamless tubemaking process, 9/17, p.172
Steel mill for New Jersey, 12/24, p.35

Piasecki Aircraft Corp.:
Buys Bellanca's aircraft plant, 12/24, p.60

Pines Engineering Co. Inc.:
Tube bender, IE, 11/26, p.129

Pioneer Aluminum Inc.:
Formed, B, 7/23, p.70

Pipe Machinery Co.:
Briner, C. V.: Management at Work, 8/6, p.87

Pitney-Bowes Inc.:
Annual report given employees, 9/10, p.102

Pittsburgh Consolidation Coal Co.:
Forms firm with Standard Oil, 10/8, p.89

Pittsburgh Metals Purifying Co.:
Sold, B, 8/27, p.76

Pittsburgh Steel Co.:
Billet mill for Monessen works, 8/6, p.72; contracts award, 8/13, p.77
Electrocoating facilities expanded, 12/24, p.60

Pittsburgh Tube Co.:
Magnetic rolls cut crop loss, hot saw transfer tables, 12/17, p.94

Pneuma-Serve Inc.:
Automated assembly unit, IE, 10/1, p.254

Porter Company, Inc., H. K.:
Acquiring West Virginia Steel, 9/17, p.86; sale, 10/1, p.141
Amortization request, W. Va., 12/3, p.83
Disston moves Chicago office, 7/9, p.82
Vulcan gage and die steels, IE, 7/23, p.104
W-S Fittings: Kemper-Management at Work, 8/13, p.59

Prairie Pipe Mfg. Co.:
Pipe plant, 9/10, p.105

Pratt & Whitney Co. Inc.:
Gage measures thickness, IE, 9/10, p.188
Lathe speeds jet disc output, tracer controlled, center driven, 12/17, p.92
Numerical control for jig borer, 7/23, p.82
Sterling Die moves, Cleveland, B, 12/3, p.114

Prenco Products Co.:
Expands, B, 11/19, p.132
Harmark license, B, 8/20, p.104

Press Automation Systems Inc.:
Press unloader, IE, 9/24, p.143; 12/17, p.114

Pressure Pipe Co. of Canada Ltd.:
Water pipe system, 8/27, p.53

Production Machine Co.:
Surfacing machine, IE, 10/1, p.254

Progress Mfg. Co.:
Luria Eng. builds, 8/27, p.53

Purolator Products Inc.:
Coolant filters, IE, 7/30, p.127

Q

Quaker State Metals Co.:
Reflective alum. insulation, 12/24, p.61

Quantum Inc.:
Photometric instrument measures thin film thicknesses, TO, 11/26, p.89

R

Racine Instrument Co.:
Point indicator, IE, 7/30, p.124

Radio Corp. of America:
A changing product mix for electronics (chart), 11/12, p.80
Transistors: Manufacturing under a microscope, 12/17, p.91

Rampe Mfg. Co.:
Barrel finisher, IE, 8/27, p.108

Ransohoff Inc.:
Ultrasonic cleaning unit, IE, 10/1, p.254

Ravens-Metal Products:
Heated weld patent, TO, 12/17, p.85

Raybestos-Manhattan Inc.:
Ray-Bond adhesive, IE, 8/13, p.127

Raydyne Corp.:
Dynamic balancing, IE, 7/23, p.104

Raymond Corp.:
Revolving fork truck, IE, 12/17, p.111

Raymond Rosen Engineering Products Inc.:
Renamed, B, 10/1, p.146

Raytheon Mfg. Co.:
CAA contract for traffic radars, 11/26, p.52
Laboratory, Mass., B, 12/31, p.55

Rea Magnet Wire Co. Inc.:
Steel pails package magnet wire, 7/9, p.108

Redmond Co. Inc.:
Motor loses weight, magnesium stators, 7/16, p.158

Reed-Prentice Corp.:
Reedmatic lathe, IE, 8/20, p.143

Reed Roller Bit Co.:
Houston plant: Automation handles 30-ft parts, 12/10, p.146

Reeve Electronics Inc.:
Induction heater, IE, 12/17, p.108

Reeves Steel Co.:
Tunnel cooling whips space problem, 7/23, p.84

Reliance Electric & Engineering Co.:
Automatic furnace is versatile: Jere N. Helfat, 11/19, p.163
Computers speed design, 12/31, p.61
Distribution center, N. J., B, 12/17, p.81

Rem-Cru Titanium Inc.:
Buys land, Pa., B, 9-17, p.122

Remington Arms Co.:
Buys Mall Tool, B, 9/17, p.130

Republic Steel Corp.:
Barrel plant, W. Va., 10/1, p.119
Executive changes, 8/27, p.50
Executive line-up, 11/5, p.71
Expands Ferndale plant, conduit tubing, 10/29, p.107
Furnace replaced at Buffalo, 10/29, p.112
Making 200-type stainless: G. W. Hinkle, 7/9, p.94
Plastic pipe equipment, Ark., B, 11/5, p.93
Plating line, Cleveland, 9/3, p.51
Pressed Steel: Material handling box, IE, 7/9, p.112
Sheet Culvert sales setup, 10/15, p.100
Slabbing mill order, B, 7/30, p.86
Steel expansion plans, 10/15, p.64
Titanium facilities expanded, Canton, 8/13, p.51
Training courses during strike, 7/23, p.39

Reserve Mining Co.:
Dedicates Davis processing plant, Silver Bay, Minn., 9/17, p.92

Resistance Welder Corp.:
Strip mill welder, IE, 8/13, p.126

Revere Copper & Brass Inc.:
Buys Aluminum Foil, B, 10/22, p.74
To join Olin Mathieson, 9/10, p.128 and 8/27, p.140

Reynolds Metals Co.:
Aluminum rod upgrades killed steel: Long and Brennan, 9/24, p.124
Book: Aluminum in modern architecture, 11/26, p.60
Buys Arrow Brands, B, 9/17, p.127
Expands cable mill, Sheffield, Ala., 10/15, p.75
Listerhill, Ala., plant started, 7/30, p.51
Listerhill facilities near Ford's 10/1, p.108 and 10/15, p.75
Makes partition walls with Hauserman, 8/20, p.107
Mines Haitian bauxite, 7/9, p.47
St. Lawerence plant proposed, 9/17, p.85

Rheem Automotive Co.:
West Coast plant, 12/31, p.54

Rheem Mfg. Co.:
Aims at all-gas air conditioning, 10/1, p.108
Buys Standard Enameling, B, 10/8, p.90
Glass lines its heaters, 10/15, p.124
Rotary furnaces speed shellmaking, 10/22, p.102

Richards-Wilcox Mfg. Co.:
Automatic dispatch system, IE, 8/27, p.108

Rimer Precision Casting Co.:
Formed, B, 9/3, p.73

Robertshaw-Fulton Controls Co.:
Lab enlarged, Calif., B, 7/9, p.81
Suction pyrometer, IE, 7/2, p.88

Rockwell Mfg. Co.:
Buys Dual Parking Meter, B, 10/29, p.115
Drill press, IE, 10/1, p.259
Lab, Dubo's, B, 9/10, p.130
Metal stockpiling harmful, Col. Rockwell states, 9/24, p.60
Moves meter div., B, 12/10, p.133
New plants, 10/15, p.74

Roebling's Sons Corp.:
Buys heating furnace, B, 10/29, p.112

Rolled Steel Corp.:
Builds plant, B, 11/19, p.111
New name, B, 11/26, p.86

Rollway Bearing Co.:
Thrust bearing, IE, 12/17, p.111

Rome Strip Steel Co.:
Buys Presteel's rolling mill equipment, 11/26, p.85

Rotary Electric Steel Co.:
J&L to buy, 12/31, p.29

Roth Rubber Co.:
Nonporous rubber, IE, 8/6, p.135

Roylyn Inc.:
Hose couplings, IE, 7/30, p.124

Ruesch Machine Co.:
Slitters, IE, 11/12, p.158

Russell, Burdsall & Ward Bolt & Nut Co.:
Fastener sales outlook, 9/3, p.56
Pricing system, 8/27, p.118
Wrenching practice, TO, 7/23, p.77

Rust Engineering Co.:
Erects Atlantic Steel's bar mill, 12/3, p.107

Ryder System Inc.:
Leases radios for trucks, 7/16, p.86

Ryerson & Son Inc., Joseph T.:
E-Z-Cut steel plate, IE, 10/6, p.259
Equipment for abrasive disc cutting -stainless plates, 12/10, p.128
Pakistan (Syed) visits, 9/10, p.111
Ryerson Div. renamed, B, 8/6, p.105
Sells aluminum, B, 9/17, p.124

S

S&S Machinery Co.:
Radial drill, IE, 8/27, p.110

S-P Mfg. Corp.:
Moves, B, 8/27, p.76

St. Joseph Lead Co.:
To build smelter in Canada, 11/12, p.107

Sabre Steel Service Inc.:
Warehouse, Buffalo, B, 10/3, p.99

Sargent EnginAiring Co.:
Tunnel fan system for Reeves Steel, 7/23, p.84

Sawhill Tubular Products Inc.:
Pipemaking facilities expand, 10/1, p.119; 11/5, p.93

Schaffner Mfg. Co. Inc.:
Adds to plant, B, 9/10, p.127

Schlaky Bros. Inc.:
Spot welder, IE, 10/15, p.148

Scott Paper Co.:
Paper wipers, IE, 10/1, p.272

Scovill Mfg. Co.:
Adds Wis. branch, B, 7/16, p.109
Cored forging press, 7/2, p.70

Code: B—*Briefs;* TO—*Technical Outlook;* IE—*Industrial Equipment*

Scully-Jones & Co.:
Computer used in machining expanding shell, 8/13, p.118
Pin-type arbor, IE, 9/24, p.138

Sel-Rex Precious MetalsInc.:
Stressed nickel, TO, 7/30, p.91

Selas Corp. of America:
Fl-Scope, IE, 10/22, p.108
Gas-fired machine brazing: W. B. Troupe, 10/29, p.124
Vertical annealing furnace for Somers Brass, 12/24, p.67

Seneca Falls Machine Co.:
Automatic lathe for auto mfg.: Standard machine goes special, 9/10, p.146

Seneca Wire & Mfg. Co.:
Expansion program, 9/3, p.127

Sentry Co.:
Steel hardening furnace, IE, 10/1, p.270

Servel Inc.:
Sprayed aluminum aids heat transfer, TO, 12/24, p.63

Service Machine Co.:
Open back press, IE, 7/2, p.92
Punch press, IE, 9/10, p.176

Servo Corp.:
Adds to assembly plant, 12/10, p.98

Sesco Inc.:
Press unloader, IE, 8/20, p.143

Shaleo Engineering Corp.:
Consolidates, B, 9/3, p.74
Shell mold machine for National Tube, 7/2, p.76

Sharon Steel Corp.:
Blooming mill contract, B, 7/30, p.88
Renames Detroit Tube div., B, 10/8, p.89

Shaw Box Crane: See Manning, Maxwell

Sheffield Corp.:
Bendix Aviation merger, 12/24, p.28; 12/31, p.29
Electronic comparator, Accutron, IE, 10/22, p.105
Electronic gage, IE, 11/5, p.156
Hardness tester, IE, 10/1, p.264
Leadcek, measuring instrument, IE, 11/26, p.124
Thickness gage, IE, 10/8, p.119
Timer-recorder, IE, 10-22, p.108

Sheffield Steel: See Armco Steel

Sheldon Machine Co. Inc.:
Lathe series, IE, 11/19, p.187

Shell Oil Co.:
No-fire fluid, TO, 7/16, p.131

Shenango Furnace Co.:
Consolidates Shenango-Penn, 8/13, p.85

Shieldalloy Corp.:
Cashing in on rare metals (columbium, tantalum, etc.), 10/22, p.48

Sieburg Industries Inc.:
Tensikut machine tester, IE, 10/1, p.270

Siegler Corp.:
Buys Kinnaire, B, 8/20, p.112

Sierra Electronic Corp.:
Sold, B, 11/26, p.86

Signode Steel Strapping Co.:
Adjustable container, IE, 7/2, p.92
Anchor plates, IE, 12/3, p.162
Moves Buffalo unit, B, 12/3, p.112
Strapping dispenser, IE, 11/12, p.166

Size Control Co.:
Lapping machine, IE, 7/9, p.110

Skidmore-Wilhelm Mfg. Co.:
Torque wrench calibrator, IE, 10/29, p.148

Skinner Chuck Co.:
Enlarges, B, 12/10, p.101

Smith Corp., A. O.:
Fifth wheel tractor-trailer, TO, 12/10, p. 141
Forms subsidiary, B, 12/3, p.110

Snyder Tool & Engineering Co.:
Milling machine, IE, 10/22, p.106
Precision borer, machining and assembly, IE, 8/27, p.101

Socony Mobil Oil Co. Inc.:
Moves at N. Y., B, 10/8, p.90

Sod-Master Corp.:
Tape-Master protects metal finishes, 8/13, p.104

Solar Aircraft Co.:
I have enough engineers: Hiram Brown, 11/12, p.130
Enlarging plant, B, 9/10, p.128

Somers Brass Co.:
Fine grained brass for deeper draws, 12/24, p.66

Soundscriber Corp.:
New plant, B, 12/10, p.98

Southern Peru Copper Corp.:
Sponsors for Toquepala mine, 8/27, p.52

Special Engineering Service Inc.:
Press feeder, IE, 11/26, p.131

Specialized Trailers Inc.:
Formed, B, 7/16, p.109

Speed-D-Burr Corp.:
Builds, B, 7/16, p.112

Speer Carbon Co.:
Research lab., 12/10, p.130

Sperry Rand Corp.:
Plant to fabricate flat steel, B, 11/26, p.86

Sprague Electric Co.:
Buys Italian firm, 10/22, p.57

Square D Co.:
Builds at Atlanta, B, 7/16, p.114
Builds, Lexington, Ky., B, 8/13, p.79
Patterson: Management at Work, 9/24, p.75

Stainless Scrap Corp.:
New name, 7/23, p.68

Stainless Welded Products Inc.:
Renamed, B, 7/16, p.112

Stanat Mfg. Co. Inc.:
Builds plant, B, 8/20, p.111
Cold strip mill, IE, 10/29, p.150
Miniature mill for fine wire, TO, 10/8, p.93
Rolling mill processes nuclear materials, 12/3, p.148
Roller leveler, IE, 9/17, p.197

Standard Electrical Tool Co.:
Speed lathes, IE, 8/27, p.108

Standard Enameling Co.:
Sold, B, 10/8, p.90

Standard Oil Co. of Calif.:
Crude oil handling contracts, 8/27, p.76

Standard Oil Co. (Ohio):
Forms Mountaineer Carbon with Pittsburgh Consolidation, 10/8, p.89

Standard Pressed Steel Co.:
Miniaturization: H. T. Hallowell report, 7/23, p.78
Roach: BDSA post, 7/23, p.44

Standard Register Co.:
Builds, Ark., B, 11/5, p.96

Standard Steel Corp.:
Buys Leader Iron Wks., B, 11/26, p.86

Standard Tube & T. I. Ltd.:
Expands, B, 11/12, p.110

Stanley Works:
Expands strapping plant, B, 8/20, p.101

Starrett Co., L. S.:
Micrometers, IE, 10/1, p.271

Stauffer Chemical Co.:
Buys West End Chemical, B, 10/15, p.104
Enlarges titanium facilities, 8/20, p.101

Stearns Electric Corp.:
Magnetic disc brake, IE, 9/17, p.202

Stearns Magnetic Inc.:
Sells line, B, 8/6, p.105

Steel Co. of Canada Ltd.:
Expands, B, 7/9, p.82
Slabbing mill contract, B, 8/20, p.104

Steel, Peech & Tozer:
Strip mill (England), 9/3, p.73

Steep Rock Iron Mines Ltd.:
New mines scheduled, 7/23, p.32

Sterling Foundry Co.:
Buys Brown Industries, 10/22, p.74

Stevens Inc., Frederic B.:
Expands, B, 9/3, p.73

Stewart-Warner Corp.:
Oil-Mist lube, IE, 10/8, p.122

Stokes Corp., F. J.:
Vacuum furnace, IE, 10/1, p.272; 11/19, p.184
Vacuum process, stream degassing tech., 11/12, p.144

Stokes Machine Co., F. J.:
Renamed, B, 7/16, p.109

Stolper Steel Products Corp.:
Adds to plant, B, 9/17, p.122

Stone Machinery Co.:
Cutoff machine, IE, 10/15, p.150

Strategic Materials Corp.:
Canadian plant, B, 7/23, p.68

Strategic-Udy Processes Inc.:
Buys lab, Niagara Falls, B, 11/5, p.99

Strategic-Udy Metallurgical & Chemical Processes Ltd.:
Plant operations schedule, B, 12/3, p.110

Stroman Furnace Co.:
Machine cast slugs, TO, 9/3, p.77

Studebaker-Packard Corp.:
Business aims outlined, 11/26, p.72
Busines capital, outlook, 9/24, p.80
Curtiss-Wright option talk, 8/6, p.92
Daimler-Benz marketing rumored, 8/13, p.44
Nance salary settlement, 10/8, p.76
Packard for '57, 9/3, p.40
Packard suspends production, 7/2, p.48
Schmidt: Management at Work, 10/15, p.79
Stockerholder charges shareholders misled, 10/22, p.60
Studebaker cars-trucks for next year, 9/17, p.86

Sunbeam Corp.:
Casemaster furnace, IE, 9/24, p.138
Walking beam furnace, IE, 10/1, p.267

Sundstrand Machine Tool Co.:
Card controls on lathe, TO, 12/10, p.141
Milling machine spindle speeds, IE, 11/19, p.183
Rigidmil router, IE, 12/17, p.107

Superior Brass Works Inc.:
Buys Kendrick inventory, B, 10/9, p.132

Superior Steel Corp.:
Price revision, copper-clad strip, 9/3, p.126

Superior Tube Co.:
Aperture masks, new field, 9/10, p.128
Cold drawn tubing, IE, 11/12, p.161
Enters atomic energy field, 7/30, p.77
New building, B, 11/12, p.82
Stainless rod for static, TO, 8/27, p.79
Tubing from NiSpan, TO, 8/13, p.99

Superston Corp.:
Markets new aluminum bronze with 12 per cent manganese, 11/12, p.147

Surface Combustion Corp.:
Automatic furnace for Reliance, 11/19, p.163
Cycle annealing furnace for Fairfield Mfg., 12/3, p.150

Plant addition, 9/3, p.74
Snap hearth furnace, IE, 10/1, p.258

Sutorbilt Corp.:
Moves service offices, B, 11/19, p.135

Sutter Products Co.:
Moves, B, 11/19, p.135

Sutton Engineering Co.:
Multiple tools straighten extrusions, 9/10, p.175

Swanson-Erie Corp.:
Pre-engineering programs stressed, 12/3, p.139

Swanson Tool & Machine Products Inc.:
Auto-Tran index machine, IE, 9/10, p.176
Changes name, B, 11/26, p.85

Swedish Crucible Steel Co.:
Expands, 9/24, p.71

Swepco Tube Corp.:
Renamed, B, 7/16, p.112

Swift & Co.:
Pickling bath additive, IE, 8/6, p.136

Swift Electric Welder Co.:
Merges, B, 8/20, p.112

Swift-Ohio Corp.:
Submerged arc welder, IE, 12/17, p.108

Sylvania Electric Products Inc.:
Builds pilot plant, B, 11/5, p.67
Buys Argus Cameras, B, 12/10, p.136

Buys Titusville, Pa., plant, B, 10/1, p.148
Research lab., 12/10, p.130
Tungsten offices moved at N. Y., 10/1, p.152

Synder Tool & Engineering Co.:
Transfer machine, IE, 11/19, p.186

Syntron Co.:
Lapping machinery, TO, 12/10, p.141
Storage parts feeder, IE, 8/13, p.132

Syracuse Special Machine Co.:
Stud driver, IE, 9/17, p.210

T

Tait Mfg. Co.:
Expands, B, 10/15, p.75

Tata Iron & Steel Co. Ltd.:
Executive to tour U.S., 9/10, p.111

Taylor Forge & Pipe Works:
Expands, Ont., 9/10, p.102

Taylor-Winfield Corp.:
Resistance welders for steel windows, TO, 10/29, p.121

Tecumseh Products Co.:
Buys Taylor Sales Eng., B, 11/19, p.135

Tele-Dynamics Inc.:
New name, B, 10/1, p.146

Tempco Aircraft Corp.:
Nitrided tools, TO, 12/17, p.85

Templ Co.:
Heat indicators, IE, 7/16, p.164
Templistiks, IE, 10/1, p.271

Thermo Electric Co. Inc.:
Pyrometer controller, IE, 12/24, p.75

Thew Shovel Co.:
Leases Magic Chef property, 8/27, p.76

Thomas Hydraulic Speed Controls Inc.:
Buys Aircraft & Automotive, B, 10/29, p.115

Thompson Grinder Co.:
TR circular grinders, IE, 7/9, p.109

Thompson Products Inc.:
Black, Stacy: Management at Work, 9/17, p.101
Builds in Virgina, B, 10/29, p.107
Colwell predicts auto developments, 7/16, p.96

Thomson Electric Welder Co.:
Synchro-Shear, flash welder, IE, 10/1, p.253

Thomson Industries Inc.:
Linear ball bearing, IE, 11/19, p.186

Tiffin Art Metal Co.:
Merged with Squire Heating, B, 11/19, p.135

Timken Roller Bearing Co.:
Air conditioned cranes, TO, 12/24, p.63
Graph-Air, tool steel, IE, 9/17, p.218
Metallurgical lab., B, 12/10, p.130
Silica brick for furnaces, treated for dust, 9/3, p.86

Tinchet Products Co.:
Casting impregnator, IE, 7/23, p.104
Renamed, 12/24, p.61

Tinius Olsen Testing Machine Co.:
Testing machine, IE, 10/1, p.261

Tinnerman Products Inc.:
Speed clip, IE, 12/3, p.164

Tipp Mfg. Co.:
Conveyor trolley, IE, 8/20, p.144
Forms controls div., B, 10/29, p.107

Titan Metal Mfg. Co.:
Western brass mill, 11/26, p. 61; 12/3, p.108

Titanium Metals Corp. of America:
Expansion program, 8/27, p.53
Henderson, Nev., plant output, 7/9, p.48
Los Angeles warehouse, B, 8/6, p.105
Toronto, O., plant converted to process titanium, 11/5, p.93

Toledo Scale Co.:
Compression tester, IE, 11/5, p.163

Toolset Inc.:
Moves, B, 10/15, p.102

Topp Industries Inc.:
Buys Heli-Coil, B, 10/15, p.106

Torit Mfg. Co.:
Dust collectors, IE, 10/8, p.118

Tormag Transmissions Ltd.:
Whitney Chain license for magnetic drive, 11/26, p.118

Towmotor Corp.:
Camden service branch, B, 10/22, p.74
To purchase Gerlinger, 8/6, p.105

Townsend Co.:
Buys Impact Products, 12/3, p.126

Trabon Engineering Corp.:
Solon plant, B, 12/31, p.55

Tracer Control Co.:
Duplicator, IE, 10/29, p.150

Trailmobile Canada Ltd.:
Sold, B, 11/19, p.135

Trane Co.:
Air conditioning trend grows, 8/20, p.79
Plant expansions, 10/22, p.49

Treesdale Laboratories & Textile Processing Inc.:
Buys Pittsburgh Metals Purifying, 8/27, p.76

Trion Inc.:
Canadian unit, B, 12/17, p.81
Electronic cleaning equipment licensed, 12/3, p.85

True-Trace Corp.:
New branches, B, 12/31, p.54

Tube Manifold Corp.:
Opens plant, B, 7/9, p.81

Tube Turns Plastics Inc.:
Plastic pipe joint, IE, 10/29, p.152

Tubular Rivet & Stud Co.:
Chicago warehouse, B, 9/17, p.119

Turchan Follower Machine Co.:
Automatic tracer, IE, 11/5, p. 153

Twin Coach Co.:
Buys boat firms, B, 10/15, p.104

Twin Disc Clutch Co.:
Opens Racine plant, B, 10/8, p.89

Tyron Inc.:
Formed, B, 7/9, p.82

Ty-Sa-Man Machine Co.:
Abrasive disc cutter, 12/10, p.128

U

Ulbrich Stainless Steels Co.:
Buys annealing furnace, B, 11/12, p.110
Expands plant, B, 8/6, p.106

Union Carbide & Carbon Corp.:
Hydraulic fluids, fire-resistant, IE, 11/19, p.194
Karbate protects pipe, IE, 11/19, p.183
Price increase in electrodes-anodes, 10/1, p.108
Research Institute formed, 12/31, p.54
Research lab at Parma, O., 9/24, p.93
Uranium processing mill, 7/2, p.61

Union Twist Drill Co.:
Buys R. Stock, B, 11/19, p.132

United Drill & Tool Corp.:
Equips Puerto Rican plant, B, 10/8, p.90

United Engineering & Foundry Co.:
Blooming mill for Sharon Steel, 7/30, p.88
Slab mill contracts:
Canada, 8/20, p.104
Inland Steel, 7/16, p.84
Republic Steel, 7/30, p.86

United Screw & Bolt Corp.:
Offers head screws, B, 10/1, p.144

United Shoe Machinery Corp.:
Sells divisions, B, 7/30, p.86

United States Air Conditioning Corp.:
Moves offices, B, 7/16, p.117

United States Borax & Chemical Corp.:
Adds lab, B, 9/10, p.128

U.S. Burke Machine Tool:
Automatic tracing attach., IE, 11/5, p.163

U.S. Drill Head Co.:
Multiple drilling, IE, 8/13, p.127

U.S. Electrical Motors Inc.:
Varidyne drive system, IE, 12/17, p.108
Vertical motor, IE, 8/27, p.108

United States Graphite Co.:
Metal powder parts get new look, 12/3, p.121

U.S. Industries Inc.:
Axelson milling machine, 7/2, p.93
Buys Western Design, B, 9/24, p.98

U.S. Steel Corp.:
AS&W: Magnetic inspection, rod mill, 9/3, p.78
Base price increases on selected steel products, 8/13, p.50
Bay Estes: Management at Work, 12/10, p.107
California steel plant developments (Pittsburg), 10/22, p.39
Capacity expansion, 12/10, p.92
Clearing Machines press lube, IE, 7/2, p.89
Columbia-Geneva: Steel pipe moved on flatcar, 11/12, p.91
Duquesne heat treat furnace, 7/30, p.86
Expansions, trestle-stockhouse, 9/3, p.126
Gerrard strapping sealer, IE, 7/30, p.124
Homestead Wks.:
Adds reheating furnaces, 9/10, p.105
Adds T-1 alloy line, 7/16, p.193
Stainless curtain walls for office building, 12/3, p.154
How temperature affects strip: Goettge and Robinson, 10/1 p.164
Irvin Works: Vinyl coated cold rolled sheets, colors, textures, 9/3, p.103
National Tube Div.: Shell molding machine for large castings, 7/2, p.76
Oil purification plant, Clairton Works, 9/3, p.73
Ore processing plant proposed, upper New York, 9/17, p.85
Pittsburgh Steamship:
Ore strike called, 8/20, p.67
Ore strike ends, negotiations, 9/10, p.49
Raw material preparation: M. W. Lightner, 9/17, p.181
Sintering plant design for U.S. Steel-Youngstown, 7/2, p.74
Sintering plant conveyor system, contract, 8/6, p.105
Strike effect, labor troubles not solved, 8/13, p.51
Structural steel equipment contract, 8/27, p.75

United States Steel Homes Inc.:
Changes to operating div., B, 12/17, p.81

Universal Corp.:
Buys Marion Power Shovel and Osgood, B, 11/26, p.86

Universal-Cyclops Steel Corp.:
Guide to hot work tooling: H. E. Replogle, 9/24, p.116
Pilot plant proposed, "space suits" for workers, 9/24, p.59
Pilot plant-inert gas atmosphere: The plant that outlaws air, 10/22, p.78

Universal Screw Co.:
Moves, B, 11/26, p.86

Universal Vise & Tool Co.:
Rotary table, IE, 12/31, p.73

Utica Drop Forge & Tool Corp.:
Builds plant near Utica, 9/10, p.104
Cold-welding tools use only pressure to join tubing, 9/3, p.83
Kelsey-Hayes to buy, 7/30, p.88

Utility Trailer Mfg. Co.:
Opens Calif. plant, 9/10, p.104

V

Vac-U-Lift Co.:
New name, B, 11/5, p.93

Vacuum Cleaner Mfg. Co.:
Vacuum cleaner, IE, 7/16, p.172

Vacuum Metals Corp.:
Sold, B, 11/5, p.70

Valley Metal Products Co.:
Buys window line, B, 9/10, p.132

Vanadium-Alloys Steel Co.:
Expands Latrobe plant, 8/20, p.79
Joint firm in France, 9/10, p.127
West Coast warehouse, B, 9/17, p.124

Vanadium Corp. of America:
Buys ore reserves, B, 9/17, p.124
Moves engineering dept., 8/13, p.82; 10/1, p.146

Van Keuren Co.:
Precision measuring tools make midget parts, 11/5, p.141

Van Norman Industries Inc.:
Buys American Pulley, B, 8/20, p.112
Buys Bingham-Herbrand, 12/10, p.136; rumor, 10/8, p.90

Van Norman Machine Co.:
Centerless grinder, IE, 7/23, p.102

Vanton Pump & Equipment Corp.:
Pump liner, IE, 8/27, p.102

Vapor Blast Mfg. Co.:
Carbide testing, 9/10, p.197

Velocity Power Tool Co.:
Welding torch, IE, 11/26, p.129

Vento Steel Products Co.:
Builds, B, 7/9, p.82

Verson Allsteel Press Co.:
Enlarges office, B, 10/29, p.115
Gap press, IE, 9/17, p.212

Vickers Inc.:
Forms automotive div., B, 10/15, p.102

Vickers-Sperry of Canada Ltd.:
Moves, B, 12/3, p.114

Victor Equipment Co.:
Builds at Norwalk, Calif., 12/17, p.57

Vilter Co.:
Drill speeders, IE, 10/15, p.148

Vincennes Steel Corp.:
Sold, B, 12/10, p.136

Vinson Steel & Aluminum Co.:
Houston office, B, 9/10, p.128; 12/3, p.112

Visi-trol Engineering Co.:
Platen conveyors, IE, 11/19, p.192

Vitro Corp. of America:
Buys Berkshire Chemicals, B, 12/10, p.136

Vitro Uranium Co.:
Uranium contract, B, 11/19, p.127

Volkert Stampings Inc.:
Kleinoder visits Zagreb trade fair, 9/10, p.111

Vorays Bros.:
Warehouse, B, 7/2, p.62

Voss Belting & Specialty Co.:
Meshlok belt conveyor, IE, 10/22, p.106

Vulcan Detinning Co.:
Merges, B, 9/24, p.101

W

Wade Tool Co.:
Bench lathe, IE, 11/19, p.196

Wadell Equipment Co.:
Index table, IE, 9/10, p.183

Wagner Mfg. Co. Inc.:
Renamed, B, 10/1, p.146

WalMet Alloys Co.:
Changes hands, B, 7/16, p.112

Wales-Strippit Corp.:
Ralph, C. A.: Management at Work, 10/22, p.55
Sold, B, 7/30, p.83

Walker Mfg. Co.:
Auto muffler, CO_2 shielded arc weld, 10/15, p.126

Wall Colmonoy Corp.:
Detroit foundry, B, 7/30, p.86
Forms unit, B, 10/22, p.73
Spraywelder, IE, 12/3, p.156
Welding flux, IE, 8/27, p.111

Wallace & Co., L. R.:
Coating machine, IE, 10/29, p.150
Profile router, IE, 9/17, p.214

Wallace & Co. Inc., J. D.:

Wallace Barnes Steel - Div.: See Associated Spring

Wallace Supplies Mfg. Co.:
Tube bender, IE, 8/13, p.121

Walsh Press & Die Co.:
Keep punch presses punching: E. J. Weyler, 11/19, p.172

Waltz Furnace Co.:
Electric furnace, gas controlled atmosphere, IE, 11/12, p.164

Walworth Co.:
Buys Grove Valve, B, 10/15, p.104

Warner & Swasey Co.:
A toolroom goes job shop, traffic control, 8/20, p.120
Contour tracing attach., IE, 10/29, p.147
Expansion program, 9/3, p.51
Expands, New Philadelphia, O., 12/3, p.82
Gradall boosts price on construction machinery, 10/1, p.108
Internal Contour attach, IE, 8/27, p.110
Jig borer, pic., 12/3, p.107
Salesmen conference, '57 prospects, 12/17, p.98
Single spindle chucker, IE, 12/31, p.73
Tooling technicians, 9/17, p.102
Vacation schedule, B, 7/23, p.73

Warren Mfg. Corp.:
Formed, B, 7/9, p.81

Washington Steel Corp.:
Expansion program, Sendzimir mill, stainless market, 7/30, p.55

Waterbury Farrel Foundry & Machine Co.:
Buys Sendzimir interests, 12/3, p.107
Headmaster machine, IE, 7/30, p.124

Way-Lite Corp.:
Builds plant, slag processing for building materials, 9/3, p.47

Wayne Mfg. Co.:
Electric power sweeper, IE, 7/9, p.110

Wayne Pump Co.:
Rotary pumps, IE, 9/24, p.138

Weatherhead Co.:
Holes forged in, cored forgings, 7/2, p.67; for aircraft fittings, 9/24, p.115

Webber Gage Co.:
Optical gage, IE, 12/31, p.73

Webster Instruments Inc.:
Forge gage, IE, 9/17, p.198

Wedgelock Corp.:
Formed, consolidation, 11/5, p.99

Wedge-Wire Corp.:
Shaped wire, 7-16, p.133

Weirton Steel Co.:
Cold rolled strip at 80 mph (5-stand tandem coldstrip mill), 8/20, p.128
Open hearth, 600-ton, TO, 12/31, p.57
TV closed-circuit views inside reheat furnace, 7/30, p.111

Welduction Corp.:
Induction heater, IE, 11/26, p.131

Welland Tubes Ltd.:
Pipe mill construction to start, 8/20, p.101

Wellman Bronze & Aluminum Co.:
Job shop price cutting, 12/3, p.80

Wellman Engineering Co.:
Anniversary dinner: Austin (J&L) predicts revolution in steel, 10/1, p.117; technical recruiting, 10/15, p.128

Wesson Co.:
Boring tools, IE, 9/10, p.186

Wesson Multicut Co.:
Adds plant, Brighton, Mich., 8/27, p.53

West Virginia Steel & Mfg. Co.:
Porter to buy, 9/17, p.86; sale, 10/1, p.141

Western Design & Mfg. Corp.:
Sold, B, 9/24, p.98

Western Gear Corp.:
Giving gears a precision touch, 11/5, p.111

Westinghouse Air Brake Co.:
Le Roi lab facilities, 7/2, p.62

Westinghouse Electric Corp.:
Air Arm expands, 9/10, p.105; 9/24, p.71
Aluminum coated copper wire, TO, 12/31, p.57
Atomic canned motor pumps, pic., 12/10, p.125
Atomic lab expanded for Naval Test Reactor, 9/3, p.51
Automatic welder, IE, 10/8, p.117
Blisters in babbitted bearing shoes, (storage); J.C. Helbling, 10/8, p.95
Builds in Indiana, 9/24, p.69
Coolant pump motors for radioactive fluids, 9/10, p.173
J&L contract, mill equipment, 11/12, p.83
Refrigerator-metal and plastic, 9/10, p.94
Research lab:
Cross section of program, 10/15, p.142
High temp. alloys, TO, 9/24, p.115
Stresses in reactor pressure vessels, 12/31, p.70
Weather chamber, airborne electronic test, TO, 8/27, p.79
Research spending, 9/24, p.59
Sales, 3rd quarter, 11/12, p.89
Selling campaign aimed at strike recovery, 7/2, p.38
Strike ends at Lester, Pa., 8/27, p.49
Superalloy for 1200° F, for steam turbine blades, 7/16, p.138
Transformer plant, Athens, Ga., 8/13, p.78
Transformer plant, Sharon, Pa.: Computer makes magic, 11/5, p.126
Transformers, good regulation, IE, 7/23, p.101
Why bolts fail: F. J. Poss, 12/3, p.125

Wheelabrator Corp.:
Abrasive throwing wheel, IE, 10/22, p.108
Automatic blast descaling, TO, 8/6, p.109
Blast machine, IE, 11/26, p.126
Rod straightener, IE, 12/31, p.73

Wheeling Corrugating Co.:
Pipe estimate for roads, 9/10, p.94

Wheland Co.:
Adds foundry, B, 7/16, p.112

White Sewing Machine Corp.:
May merge with Apex, 8/13, p.86

Whitin Machine Works:
Expands, B, 10/8, p.66

Whiting Corp.:
Buys Ala. pipe plant, B, 7/2, p.61

Whitney Chain Co.:
Magnetic drive new, 11/26, p.118

Wickes Corp.:
Center drive lathe faces diameters to 44 in., IE, 11/26, p.123
Metal powder parts get new look, 12/3, p.121

Wiesner-Rapp Co.:
Farnham spar mill for Air Force, 8/20, p.115

Willard Storage Battery Co. of Canada:
Merges, B, 10/1, p.152

Williams & Co., J. H.:
Hoist hooks, IE, 9/10, p. 187

Willys Motors Inc.:
Behind the Scenes at Willys, consolidates body paint line, other plans, 7/23, p.51
Brazilian investments, plant equipment, 11/19, p.127
Jeep cabs, 8/6, p.92

Wilton Tool Mfg. Co. Inc.:
Clamps, IE, 12/31, p.72

Winnipeg Brass Ltd.:
Buys Western Canada Bronze, B, 11/19, p.132

Wisconsin Motor Corp.:
Air-cooled engine, IE, 9/24, p.136

Wisconsin Steel Co.:
Strike averted, 7/23, p.38

Woodward Iron Co.:
Labor contract, 12/3, p.177

Worcester Pressed Steel Co.:
Press-necking tech., TO, 8/6, p.109
Rolling equipment sold to Rome Strip Steel, 11/26, p.85

Workington Iron & Steel Co.:
Atomic plants (England), 11/5, p.71

Worthington (Canada) Ltd.:
Buys Williams Tool, B, 12/3, p.116

Worthington Corp.:
Buys western plant, B, 10/29, p.107
Cutting table, 9/10, p.168

Wright Line Inc.:
Suspended radiant ovens, 9/10, p.174

Wye-Stanley Tool Co.:
Cut-off tool, IE, 7/2, p.88

X Y Z

Yale & Towne Mfg. Co.:
Builds in Arkansas, 10/8, p.65
Builds Calif. plant, 9/24, p.69; 10/22, p.74
Lift truck, gas-powered, IE, 11/12, p.169
Magnetic attachment, IE, 11/19, p.183

York Corp.:
Merger with B-W approved, 7/2, p.28

York-Gillespie Mfg. Co.:
Automatic pipe feeder, IE, 11/5, p.158

Young Bros.:
Impregnating ovens, 12/10, p.179

Young Spring & Wire Corp., L. A.:
Buys Extruded Hinge, B, 11/19, p.132
Buys Gonset, B, 10/22, p.74

Youngstown Sheet & Tube Co.:
Bethlehem merger (article), 12/17, p.55
Buys Emsco, B, 11/19, p.132
Buys furnaces, Indiana Harbor, 11/19, p.127
Consolidates Continental Supply and Emsco 12/10, p.136
Emsco, 12/10, p.136
General office building plans, 9/10, p.130
Revised price, standard and line pipe, 11/26, p.147
Static switch on cold mill, TO, 12/3, p.119

Zero Mfg. Co.:
Expands, B, 10/22, p.73

AUTHOR INDEX

A

Alban, Lester E. and Harrold J. Bates, Fairfield Mfg. Co., Annealing with superfast cooling option, 12/3, p.150

Austin, C. R., Kaiser Engineers, Oxygen steelmaking, 9/17, p.186

B

Baker, J. A., General Electric Co., Electric heat for plating baths, 12/10, p.170

Barth, W. J., E. I. du Pont de Nemours & Co. Inc., Descaling titanium sheet, 12/31, p.62

Bates, Harrold J. and L. E. Alban, Fairfield Mfg. Co., Annealing with superfast cooling option, 12/3, p.150

Bernstein, Harold and E. A. Gough, U.S. Naval Gun Factory, Stress relief test for titanium, 8/6, p.110

Boyer, Howard E., American Bosch Arma Corp., Another look at nitriding, 8/20, p.134

Brennan, Bruce E. and Ed Long, Reynolds Metals Co., Aluminum rod upgrades killed steel, 9/24, p.124

Brown, Hiram, Solar Aircraft Co., I have enough engineers, 11/12, p.130

C

Campbell, Guy J., General Motors Corp., Quality control charts plating savings, 7/23, p.90

Chamer, E. S. and A. M. Setapen, Handy & Harman, The why of flux, 7/2, p.80; Fluxing techniques, 7/9, p.99

Cunningham, J. W., Air Reduction Sales Co., Three ways to weld titanium, 8/27, p.84

Curry, James A., Kaiser Steel Corp., Quality control in a pipe mill, 9/10, p.148

F

Fleury, Richard B. and Leonard McDermott, Brown & Sharpe Mfg. Co., New design simplifies weldment, 11/19, p.180

G

Goettge, D. T. and E. L. Robinson, U.S. Steel Corp., How temperature affects strip, 10/1, p.164

Goss, Norman P., Consultant, Continuous casting, 9/17, p.191

Gough, Eugene A. and Harold Bernstein, U.S. Naval Gun Factory, Stress relief test for titanium, 8/6, p.110

H

Heim, Arthur I., Copper & Brass Research Assn., What copper alloy forgings can do, 12/31, p.58

Helbling, John C., Westinghouse Electric Corp., Blisters in babbitt, 10/8, p.95

Helfat, Jere N., Reliance Electric & Engineering Co., Automatic furnace is versatile, 11/19, p.163

Heuer, R. P., General Refractories Co., All-basic open hearth, 9/17, p.192

Hinkle, G. W., Republic Steel Corp., Making 200-type stainless, 7/9, p.94

Huffman, C. J., Kaiser Aluminum & Chemical Corp., Halethorpe Works, Extruding metal where it's needed, 10/22, p.95

J

Janco, Nathan, Centrifugal Casting Machine Co., Centrifugal casting moves ahead, 12/24, p.72

Johnson, Robert, Massey-Harris-Ferguson Inc., Hydraulic stamp of quality, 9/10, p.144

L

Lightner, M. W., U.S. Steel Corp., Raw material preparation, 9/17, p.181

Long, Ed and B. E. Brennan, Reynolds Metals Co., Aluminum rod upgrades killed steel, 9/24, p.124

Loria, Edward A., Crucible Steel Co. of America, Stainless in aircraft design, 11/5, p.142; 11/12, p.152

Lysaght, Vincent E., American Chain & Cable Co. Inc., Hardness testing, 7/2, p.72

Mc

McDermott, Leonard and R. B. Fleury, Brown & Sharpe Mfg. Co., New design simplifies weldment, 11/19, p.180.

M

Mallett, Manley W., Battelle Memorial Institute, Gases in Metals, 10/8, p.95

Miller, W. E., General Electric Co., Automatic controls, 9/17, p.184

Morgan, J. B., Alcoa Research Laboratories, Ultrasonic testing by immersion method, 8/27, p.94

O

Old, Bruce S., Arthur D. Little Inc., High top pressure, 9/17, p.191

P

Poss, Fred J., Westinghouse Electric Corp., Why bolts fail, 12/3, p.125

R

Replogle, H. E., Universal-Cyclops Steel Corp., Guide to hot work tooling, 9/24, p.116

Robinson, E. L. and D. T. Goettge, U.S. Steel Corp., How temperature affects strip, 10/1, p.164

Rostoker, W., Armour Research Foundation, Illinois Institute of Technology, Hydrogen embrittlement of steel, 11/12, p.138

S

Setapen, A. M. and E. S. Chamer, Handy & Harman, The why of flux, 7/2, p.80; Fluxing techniques, 7/9, p.99

Shaffer, Joseph D., Parker Appliance Co., Quality control at operator level, 11/26, p.112

Squarcy, Charles M., Inland Steel Co., More iron without more furnaces, 11/19, p.150; 11/26, p.98

T

Troupe, William B., Selas Corp. of America, Gas-fired machine brazing, 10/29, p.124

Turner, Drury D., Cameron Iron Works Inc., Split die forging solves a problem, 11/26, p.94

V

Viers, Eugene D., Kondor Products Corp., Lubrication in drawing, 7/9, p.86; 7/16, p.148; 7/23, p.94

W

Webber, H. M., General Electric Co., How to braze stainless, 9/3, p.94; 9/10, p.158

Weyler, E. J., Walsh Press & Die Co. Division, American Gage & Machine Co., Keep punch presses . . . punching, 11/19, p.172

Whitten, J. L., Lee Wilson Engineering Co. Inc., Trends in annealing, 9/17, p.188

Wilson, Richard J., Inland Steel Co., More iron without more furnaces, 11/19, p.150; 11/26, p.98

Code: B—*Briefs;* TO—*Technical Outlook;* IE—*Industrial Equipment*